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The Maine Farmer.

S. L. BOARDMAN, Editor.

Our Home, Our Country, and Our Brother Man.

Making Hay.

The great prominence and importance of the hay crop, and the great difficulty, on account of its magnitude, and the high prices of labor, of securing it in the best manner, and in proper time, have brought forth some new devices for abridging the process, aiming to secure the desired result in a more expeditious manner, and by cheaper means. We do not here refer to the mower, the tedder, the horse-rake, &c.,—opinion and practice seem to have become well nigh settled in regard to these; but to theories and proposed methods in regard to drying the hay. All know that grass must be dried, or in some way disencumbered of its surplus moisture in order to make hay. Our fathers used to mow it when they could, spread it to dry when the sun shone, haul it in when dry enough, and cock it, or haul it in sufficiently dried in case of rain. And with labor cheap and hands plenty, they got along tolerably well. After a while hay caps came to be used, but, though still employed to a considerable extent, they seem to be less relied on than formerly, some farther, and more efficacious means being sought. Pursuant to these views, it has been asserted that hay need not be dried so much as was formerly thought necessary. Some carry the idea so far as to maintain that if the grass is cut in bright sunshine, after the dew has been entirely dried out, only a few hours sun will be required to prepare it for the mow, when it will finish the process of turning to hay. Quite a number of our friends who have tried this process have entirely failed, and lost their grass. And though the number and respectability of those who propose this method forbids us to reject it summarily, we think it advisable to institute a careful inquiry into its merits, and particularly as to its practicability. It may not be denied that when the grass has attained a certain point of maturity it may be managed as directed, being dried enough to start the process of curing, and then allowed to perfect it by a mild fermentation in the mow. And it is undoubtedly true that by this process very good hay may be made. But can the farmer manage to secure any considerable portion of his crops in this manner? It seems to us that if he should attempt it, a large portion of his grass would be likely to get far over ripened, even with the appliances of modern machinery; and if he attempts this method with grass that has not attained the necessary maturity of growth, experience teaches us that he will be likely to have very poor hay. Again, it often happens that the farmer is favored with so generous a growth of grass that it lodges, and holds the dew from day to day, even in ordinary good weather, which difficulty is greatly enhanced in such moist hay seasons as we sometimes have; so that it looks as if but a small portion of the hay crops can be secured in this manner.

It is undeniable that some method is needed by which farmers can secure their hay crops in better condition, and with less expense. Our correspondence shows that the community is alive to the subject, and yet that the desired means has not yet been discovered. What is needed, is a method by which hay of the best quality can be made at will, and economically, irrespective of the weather. Whether this can be attained may be a matter of dispute, but in view of the wonderful triumph of science and invention, who shall say that such a thing is impossible.

Insects this Season.—The Rose Slug.

We are in the midst of the insect season, and every farmer, gardener, and fruit-grower is a practicable entomologist, and studies entomology whether he will or no. Insects of all sorts, colors and sizes, swarm in the air and people the fields, gardens and plants. Many of them are destructive to our cultivated plants, as we all have had occasion to experience, and it would seem as though but few of them can be of any possible value, but yet there are many species which fill a place in nature which cannot be dispensed with.

So far as we can learn, the farmers of Maine have not been annoyed, or their crops injured to any extent by any species this season. The apple trees have escaped almost entirely from the ravages of the two kinds of caterpillars which devastated whole orchards during the past five years. We have not seen a dozen tents this season, in this section of the State, and a tour through both the Western and Eastern portions failed to show any. Every farmer and fruit-grower will know how to appreciate their absence, and hope it may long be continued. Insect pests, have been the greatest hindrance to fruit culture in Maine, and if their absence can only be counted on as chronic, there is reason to hope for the revival of this branch of farming. The apple tree borer is still at his old tricks, but he is so well known, and his history has been so well studied and explained, that most everybody interested, knows how to head him off, or off with his head. He is not so troublesome as the caterpillars, Clisiocampa, Americana, and Silvatica.

In this connection we give place to the following, from a reader of the FARMER, who writes from New Castle:

I enclose in this, a small branch of a rosebush, with four specimens of insects found upon them. Whether they are the same in different stages of life, I know not. Do they have their origin in the spittle containing the large insect, or is that a different clean? I have found the spittle, like substance on their shrubs, but on none of the other worms or insects. If you can, will you tell me what they are, and how I can proceed to exterminate them. They nearly killed my rose bushes last summer. If you can throw any light on the subject, you will greatly oblige a lady friend in trouble, and your sincere well wisher."

EMMA HEATH.

The insects came duly to hand, but in a sadly demoralized condition, being not only dried up but nearly mashed, probably by being under the stamp of the post master's clerk or by rough handling through the mails. By the way, specimens of insects for identification should be enclosed in a small metal, wooden or pasteboard box, the former being preferable. Small ones like those above referred to, may best be sent by putting them in a section of goose quill with the ends plugged and enclosing in an envelope. Sent by mail as above directed, they will always come to hand in such shape as to be readily identified and studied, but when broken and jammed, it is most impossible to tell much about them.

Among the debris received in the enclosed we could distinguish two species, which were probably all that was sent. One, the "spittle insect," was in two stages. These two insects are the rose leaf hopper, called *Tettigonia Rosæ*, and the rose slug, *Selandra Rosæ*, these in italics being their scientific names.

The rose leaf hopper belongs to the order of insects termed *Hemiptera*, of which are furnished with a sucker instead of jaws, and instead of eating plants suck in their sap. This hopper is very injurious to the rose bush, and is found upon the leaves during the greater part of the summer. Their numerous cast off skins can be seen upon and adhering to the leaves. Several were attached to one of the leaves sent. When full grown they are of a yellowish white color. Harris says they pair and lay their eggs about the middle of June, and probably live through the winter in the perfect state among the leaves and rubbish. This insect is almost similar to the "frog hopper," or spittle insect found on grass in such myriads, and there is hardly a plant but is infested by some species. The spittle like substance which covers them, and in which they are embedded, is the soap they have sucked from the plant and which has exuded from the pores of their bodies, forming the frothy or spittle like liquid, in which they are enveloped and which protects their soft bodies from the air and other insects.

As these hoppers only suck the juice of course their destructiveness is not so plainly seen, as they leave no marks to show where they have operated, but by thus drawing away and robbing the plant of its sap which is its life blood, they are of course very injurious.

The other insect, the rose slug, is the larva or slug of the rose sawfly. In its perfect or winged form this insect is a minute fly, the body being about three-tenths of an inch long and the wings expanding two-fifths of an inch. The body is a shiny black and the wings a smoky transparent. They come out of the ground during the last of May and first of June, the females lay their eggs on the leaves which hatch in about ten days. They are to be found in the greatest numbers all through the latter part of June. The slugs or worms are of a pale yellowish green with a few small dots. They eat the upper surface of the leaves leaving the veins and skin beneath untouched. We have seen them so numerous upon the rose that a whole clump and hedge would be eaten over and not a leaf spared, the bushes looking as though they had been scorched by fire. The leaves drop off and the bush is much injured though another set of leaves usually come out.

Various remedies have been used for these pests to that most beautiful of our garden flowers, especially at this season of the year, the rose in all its varieties. What will rout one of these insects will prove a remedy for the other also. Dusting with lime while the dew is on, will kill them, but it spoils the blossoms. Whale-oil soap, such as is kept for sale for such gardening purposes, is good. Expressed tobacco juice has been used, but it is apt to be applied too strong, and injure the plant. The best remedy we have found, and best because it is the cheapest and always at hand, is to use soap suds. We have seen bushes badly affected, entirely cleansed of the pests, by two and three applications. Take the suds from the wash tub, slightly warm, make it stronger by the application of more soap, and give the bushes a thorough sousing, entirely soaking every part of them and they will be entirely routed.

Communications.

For the Maine Farmer.

Mr. Willard's Lectures at Orono.

An Abstract of a Course of Lectures on DAIRY FARMING, delivered by X A. Willard at the Maine State College of Agriculture and the Mechanic Arts, Orono. Reported expressly for the MAINE FARMER by Master William B. Oleson.

Lecture IV. Cows for the Dairy.

What is the best breed of cows and how can it be obtained? Some say Short Horn, some Ayrshire, some Alderney, some Devon and some Dutch or Holstein. It is well to consider 1st, What breed is best adapted to the climate, soil, &c., where kept. 2d, What breed is best adapted to the particular purpose required. Short horns require liberal feed and that it be easy of access. For cheese-dairying the Alderneys or Jerseys are not recommended but for butter-dairying they are good. Cattle have been domesticated for ages. Several wild species have contributed to make our stock what it is. The surest method to get good stock is to breed *where* the stock is to be used, and *from* stock that can transmit its good qualities. The Short Horn, Ayrshire, Alderney or Jersey, Devon and Dutch or Holstein, are all desirable breeds. Other breeds such as the Galloway, Kerry, Hereford, Breton, Swiss and other European varieties have not so good a reputation for the dairy. Cattle should be acclimated to do well and some time is required. The ova of the female, which are to become the germs of the future young, develop early. Vigorous females only, should be used for the improvement of stock. The male should also be vigorous and not be used too much. Abortion is alarmingly frequent in the herds of New York and adjacent States. Commissioners were appointed to inquire into its cause but did not arrive at definite conclusions. One cause however was agreed upon and that was, the employment of weakened males with females of low vitality. Practically, the dairyman must rely upon the native stock of the country for females, using thorough-bred males. Grade animals are more hardy than animals of pure breeds. Always breed with regard to the purpose for which the stock is intended.

The Short Horns, which have done more to improve the native stock than any other breed, originated in the rich pastures of England. They are docile and improve the size of the grades and the quantity and quality of beef. Mr. Allen classes them as better milkers than the other breeds with the exception of the Dutch cattle. They have been known to produce from six to nine gallons of milk per day, on grass, and from fourteen to eighteen pounds of butter per week. Grades from Short Horns are good. A level or undulating surface is conducive to the production of good beef.

The Devons, originated in the southwest part of England, make good working oxen and the cows are fair for milk. The milk is richer than that of other breeds, with the exception of the Alderney. The beef is of first class quality, fine and juicy with a delicate flavor. To the butter-dairyman on rather thinnish soil who also wants good beef, the Devon is important and will not be overlooked by him.

The Ayrshires originated on the western side of Scotland and have been bred for milk. Their milking qualities are disputed by *no one*. They are hardy and well fitted to our pasturage and can present a *good* record. European writers represent the Ayrshires as yielding from 600 to 800 gallons per year. The fault with the Ayrshires is that they have small teats and a highly excitable nervous temperament. Their meat is inferior to that of the Short Horn or Devon breed. Small teats are always considered as a bad point in a cow. An Ayrshire crossed with common stock of Short Horn blood gives larger teats and makes good animals generally.

The Alderney or Jersey breed had its origin in the Islands of the English Channel. These animals have a small, deer-like head, thin neck, hollow back, large belly and a clean, good-sized udder, and are famous for their rich milk. It is not advisable to have a herd of Jerseys alone, but to have two or three in a herd to give color and quality to the milk. Their milk has been found in some instances to contain 6¼ ounces of butter. Some cows have made 394 lbs. of butter each in a year. Five cows for five years gave 858 lbs. of butter each, per year. Their butter is of a very fine quality. Crossing between an Alderney and an Ayrshire is not considered judicious.

The Holstein or Dutch cattle are noted in Europe. They are large and compact, make good beef, and have been bred for a long time for milk. Their color is a black and white mottled, their horns are short and their hay fine and silky. A North Holland cow gave in one year 6142 Berlin quarts, or 1548 English gallons of milk. Two cows averaged 3595.4 Berlin quarts each in one year; while three Ayrshire cows yielded only 1795¼ quarts each in the same time. A North Holland cow of this description will make 800 lbs. of cheese per year, and it may be said that the Dutch cattle are especially adapted to cheese dairying.

The grazier may breed bad tempered animals but it will never do for the dairyman to breed them. Great numbers of cattle are annually spoiled by cruel treatment. Viciousness is transmitted from parent to offspring and as quietness and good temper are qualities to be sought for it will not pay to breed from vicious animals. Gentleness and quietness are the result of education largely, and consequently young stock should be petted. When so treated they will regard man as their best friend and will never be frightened by his presence, and what is more, will increase their flow of milk under such treatment.

Heifers should come in at two years of age as the milking quality is to an extent a matter of education, and should be acquired young. Good digestion is necessary for dairy stock. The belly should be moderately large sized, and the cow should have yielding sides, large mouth, thick lips, good appetite, easy and quick digestion, glossy hair and a supple skin with an unctuous feel. A good cow should also have a sound constitution, large lungs and an inclination to drink freely. Preference should be given to small-boned cows with fine and slender limbs, tail fine at base, head small and tapering and horns bright.

The udder is formed of four milky glands. Success in dairy farming depends as much upon the management as upon the blood and good breeding of the cows. First, select your stock judiciously, and second, *manage* it well. When cows are dried at the end of the season two months should be allowed for them to go dry. Some cows will continue to give milk until calving. Thin cows require more food than fleshy ones. In drying cows all the milk should be drawn from the udder as any remaining milk is apt to cause irritation. The teats should be tried often when the cow is drying up.

Shelter should be given to cows when frosts and cold weather come on, as it is much cheaper to warm by this method than by food, and much better than to allow them to remain shivering behind fences or other imperfect shields during storms. To maintain the animal heat, when exposed in cold weather, requires that the cows have one-third more food than they would require if properly sheltered. To be sure, a certain amount of exposure and exercise is necessary to the good health of the animal. But milch cows are sensitive to cold and need but little exercise. Many of the troubles at the period of calving are traceable to previous exposure. The losses by neglect of cattle in winter are very large. Carding improves the health of the stock by cleaning and improving the condition of the skin. Scratching posts should be placed in every barnyard. A good method is to place a pole upon two posts with one end higher than the other so as to accommodate different sized animals.

Lecture V. Care of Stock and General Management.

Carnivorous animals have one stomach while animals which chew the cud have four. The stomach of cows should always be distended as the contact of the sides or walls is liable to cause irritation and consequently diseases. For this reason distillery slops often prove injurious as they do not sufficiently distend the stomach. The slops of distilleries is also liable to make poor milk. The four stomachs are very capacious, especially the first one. The food is made into balls in the mouth and then passes to the first stomach after which it is returned to the mouth, made into smaller balls and passed into the second stomach. From this it passes to the third and fourth stomachs receiving fluids by the way. After passing from the fourth stomach into the duodenum it is separated into nutritious and in-nutritious portions. The fourth stomach is the one from which rennet is made. In spring when cattle are shedding their hair, if they are not carded, they oftentimes lick the hair off with their tongues, and unable after once getting it into their mouths to get it out, they swallow it in the same form that they do grass, making what is called a hair-ball. These balls are apt to excite disease. A great deal depends upon the winter management of stock. Cows should not be kept too closely in the stable as it sacrifices to a certain extent, health and vitality. The cows may look well but what is temporary profit is a loss in the end. Cattle should be bedded well, fed well, groomed well and given air and exercise once or twice per day. The cattle should be brought to the barn in good condition. Ground grain is accounted good food in the latter part of fall. Cattle should be fed three times per day, morning, noon, and night.

Grass is cut much earlier in dairy districts now than in former times and it is found that cattle thrive better upon it. Late cut grass is largely composed of woody fibre, which at once shows its inferiority. Early cut grass is equivalent, in the production of milk, butter and cheese, to late cut grass with grain or meal, as has been amply proved. It is well to cut a portion of the grass in June, before flowering and the rest should be cut by the 10th of July. It is not considered a good plan to winter cattle on one kind of food. Besides hay, they should have roots in the first part and grain in the last part of winter. Cows should not be allowed to lose flesh as it causes a poor quality of milk during the recuperation of their strength. When cows are thus recuperating there is a reduction in the butter obtained from their milk, often from 5 per cent. down to 2 per cent. The milk of such cows should be excluded from the factories or taken at less value than good milk. Meadows are more enduring when the grass is cut early than they are when it is cut after the hay has become woody. One-half a bushel of Timothy is not too much to seed per acre.

The famous Oakes cow, besides suckling a calf five weeks, produced from April 5th to Sept. 25th, 480 lbs. of butter. The Vermont cow produced from Dec. 4th, 1864, to April 4th, 1865, 504 lbs. of butter, which sold for $234 50. These cows were both good sized and native breed.

It has been proved that as much butter can be obtained from hay in winter as from grass in summer, provided it be cut early and properly cured. Cows should be fed with hay three times, watered twice and kept in the barn in winter when not exercising. Great care should be taken that they be fed and watered regularly. Since hay must be cut early in order to retain the greatest amount of nutritive material, the best New York dairy farmers cut first between June 8th and 25th. A second cutting is made in August, and sometimes a third in September. Cows are often injured by being fed upon concentrated food. Coarse fodder should be fed with meal, bran, &c., so as to make it equivalent to early cut hay. There is a gain in cutting and cooking the feed, over common hay, of about one-third. An experiment was alluded to in which there was a cost of twenty nine cents for cooked food, for each cow per day, while with hay alone the cost was thirty-five each per day, and to all appearances the former lot was in much better condition every way. Steaming renders mouldy hay, peas, beans, turnips, &c., sweet and nutritious. Instances were referred to where eight dollars were saved each year for every cow by cooking the food.

A cow should not drop her calf in the stanchion but should be let loose in an inclosure, and left to quietness. Bran mash mixed with tepid water acts very favorably for the expulsion of the afterbirth. Some prefer that the cows come in in April and May rather than in February or March. Should the cows come in as early as March something besides ordinary hay is required. Beans are used in England as feed for cattle but are not much used in America. Grains rich in albuminous matter make excellent food for milch cows. Rye, oats and buckwheat contain 14 per cent. albuminous material and are only excelled by peas and beans. A mixture of barley and oats or of peas and oats is a good feed. Corn meal is objectionable from its heating qualities. Bran with oat meal produces the best of results. Cows when first turned into grass in the spring should be allowed to remain only for a few hours at a time. Salt should be accessible to the animals. Do not supply at intervals as some would be likely to overfeed while others would not get enough. Without salt the milk becomes scanty and of poor quality. Salt is most needed in the spring when the grass is young. In a drouth there is a falling off of milk in quantity, indicating that water is needed. Cows, if need be, should be induced to drink. Milk contains about 87 per cent of water. By inducing (moderately) a cow to drink freely, several more quarts of milk may be obtained without making any special change in the quality.

The quantity of water drank by a cow is in general an index of her milking qualities. The method of inducing cows to drink, however, should not be pushed so as to deteriorate the quality of the milk. Frosts affect the grass to such a degree that it is not a good plan to keep cows in the pasture without additional food after the first hard frosts. It requires one-fourth more food to winter a cow if she come to the barn in a poor condition. At no other season of the year is so much care needed as in late autumn and so little care exercised. Barns should be warm and well ventilated and by so constructing them as to secure these two conditions a large amount of food will be economized.

Lecture VI. Milk.

Of all food required for the sustenance of man, milk is the most perfect in the variety and quality of its supply. It alone maintains life and health for an extended period of time. During the last half century the knowledge of the nature of milk has very much increased. By experiment it has been determined that the specific gravity of cow's milk (good) is about 1 030, woman's 1.020, goat's and ewe's from 1.035 to 1 042, and asses 1 019, water being 1.000. Food containing a large proportion of water makes very poor milk. Dr. Voelker determined by experiment that rich milk contains 12 per cent. of solid matter of which 3 per cent are of butter. Specific gravity is regarded as an important index. The specific gravity of cream is from 1.012 to 1.010, and hence it would sink in water. Good milk has a specific gravity at a temperature of 62 degrees, of 1 032, and contains 114 per cent. cream, when to such milk water was added the following changes in the specific gravity of the milk and in the per centage of cream were found to result.

	Spec. grav.	Per centage of cream.
Milk at 62°	1.032	.115
" with 10 per cent. water	1.0315	.10
" " 20 " "	1.0305	.09
" " 30 " "	1.029	.08
" " 40 " "	1.019	.06
" " 50 " "	1.016	.05

If to skim milk having a specific gravity of 1 035 10 per cent. water be added, the specific gravity will be 1 032; 20 per cent. water, 1.0265; 30 per cent. water, 1 0248; 40 per cent. water, 1.021; 50 per cent. water, 1.018. The conclusions drawn from experiments like the above are, 1st, that new milk has a specific gravity of about 1.030; 2d, that skimmed milk has a specific gravity of 1.034; 3d, that milk of 1.025 specific gravity is either mixed with water or is naturally very poor; 4 h, that if 10 per cent. of cream be taken away and 10 per cent. of water added the specific gravity is not changed.

Lactometers are used for testing milk. They are graduated at 100 degrees for pure milk. In one test it was found that milk of a native cow stood at 101 degrees while her strippings stood at 86 degrees, the quality increasing as the degrees on the lactometer decreased. In the same test the milk of a Jersey cow stood at 95 degrees, that of an Ayrshire at 100 degrees, of an Hereford at 106 degrees, of a Devon at 111 degrees, while their cream stood at 66 degrees.

The hydrometer should indicate whether the milk is watered or not. There is a very stringent law in New York against watering milk. In testing the per cent. of cream two cream gauges made of glass are used, into which the milk is poured and allowed to remain a sufficient length of time for the cream to rise. These gauges are graduated so that the per cent. can be readily found by examining the position of the cream on the scales. Thus absolute and relative results may be obtained. The method of testing the quality of the milk is as follows: Cream gauges are used; and into these milk is poured. Into one of the gauges pure milk is poured and it will be seen that when the lactometer is placed into it, the surface of the milk will indicate on the lactometer one hundred per cent, which is the standard of good milk. Into the other gauge, doubtful milk is poured; the lactometer being inserted, if the per cent. indicated upon the scale is below one hundred, it is evident that the milk has either been watered or is naturally of poor quality. The composition of milk of average quality is as follows:—Water, 87 40; butter, 3 48; caseine, 3.12; milk sugar, 5.12, and mineral matter, .93. Butter consists of egg-shaped globules enclosed in caseine, one-two thousandths to one-four thousandths part of an inch in diameter. The less transparent the milk the better the quality. Skim milk is more or less opaque on account of the creamy particles remaining suspended in it. The medicinal qualities of the feed may be transferred to the milk.

There is a general impression that milk is neutral or slightly alkaline. Mr. Willard states that that of his cows is of a slightly acid character. Milk is tainted by weeds and by some vegetables. Carrots give to milk a rich yellow color. Caseine exists in solution in milk, and by boiling oxygen unites with it and forms pellicles. When new milk is heated, the cream is thrown up and also pellicles of oxydized caseine. The clotted cream of Devonshire is prepared by boiling milk until it crinkles, and then setting it away until the caseine and fat have risen. This forms a most delicious article, and for it there is a large demand in the London market. Rennet coagulates milk by turning it acid. Milk sugar is left in the whey in such large quantities that to a limited extent it has been abstracted and utilized. It is obtained by evaporation in shallow vessels until crystals are formed, and is made an article of commerce in Switzerland, selling at from six to eight shillings per pound. It is not, however at present, easily obtained.

The mineral matter contained milk, as determined by several analyses was as follows:—In one thousand pounds of milk, phosphate of lime, from 2 31 to 3 44 pounds; phosphate of magnesia, .42 to .64; peroxide of iron, .07 to .07; chloride of potassium, 1 44 to 1.83; chloride of sodium, .24 to .34; free soda, .42 to 45; total, 4.90 to 6 77 pounds. In one thousand pounds of milk there are then, approximately, five to seven pounds of mineral matter. The quality of milk is affected by age and by time from calving. In England, when milch cows have attained the age of eight or ten years, they are prepared for the shambles. Cows should not be kept until they are too old, as the milk is not so good, and they will not fatten for the market so well and consequently not bring so high price as they would if younger. Has food an influence on the quality of milk or the proportion of the various constituents? Dr. Voelker says that for cheese peas, beans, clover and other nitrogenized matter should be fed, and for butter Indian meal. Cows, however, will sometimes fatten rather than give richer milk. Sometimes, cows when supplied with linseed meal will not make more butter than before. The climate has much to do with the quality of milk. In a cool, moist season milk will make a larger amount of butter that the usual quantity, and but little cheese, while in dry seasons the reverse is true. In some years there has been a difference in Herkimer county of 1,000,000 pounds of cheese from this cause. The smaller breeds of cows are much better for butter while the larger do better for cheese. There is a large amount of caseine, twelve to fifteen per cent., in the milk directly after calving, but this ceases to be the case after eight or ten days. The strippings are the richest portions of the milk, since the heaviest portions are drawn first in milking. Milking should be done with dry hands. Cows are very often dried up by neglect. Country milk is often objectionable on account of the slovenly habits of the milkers. Milk is often tainted by the animals inhaling bad odors; a dead horse in the pasture has been known to taint the milk of a whole herd. It is very essential that the milk, if designed to be delivered at a factory, should be cooled at the farm; it may be cooled by exposure to the air, or better, by setting the can into running water. Since other substances are improved by exposure to air, why should not milk be thus improved. There is evidently no connection between animal odor and animal heat.

There are various methods of transporting milk. In England, cans containing sixteen imperial gallons are used, and in France they use four gallon cans completely full. If the milk is first cooled to fifty or sixty degrees, the agitation of transportation to a limited distance, will not injure it; at a temperature of from seventy to eighty degrees, it would be affected. The milk made from a clayey soil cannot be kept, it is said, as long as that from a light soil. In cheese making the theory of the formation of curd is that rennet converts the sugar of milk into lactic acid, which neutralizes a free alkali, holding caseine in solution. This theory, however, is not scientifically correct. The way in which rennet *does* act is not definitely known, but it is *supposed* to act as a ferment.

Decay, fermentation and putrifaction are caused by the development of vegetable fungi. The species which occurs in milk is the Pencellium crustaceum, which is very abundant on the surface of the earth, appearing as mould upon vegetable and animal matters. The fungi produce fermentation, changing a portion of the sugar of milk into lactic acid, which is necessary to the formation of curd. The fungi of rennet can be destroyed by heat.

Lecture VII. Cheese Making.

It is claimed by some that shade-trees in pastures are injurious, inasmuch as the cows, instead of feeding during warm weather, will lie under the trees thus lessening the amount of milk. Some believe in this so firmly that they have the cows started up every now and then that they may move about and feed. They even cut down such trees as may be in the pasture. They claim that exercise should be taken. True, but if too much exercise is taken it will require a certain amount of food to repair the waste which would have otherwise gone to increase the supply of milk. Rest is required for proper rumination, digestion and assimilation and where can the animal better rest from the scorching heat of the sun than under shade-trees? The only plausible objection to the use of shade-trees is that the manure is deposited in one spot. This, however, can be remedied by the use of temporary shelters; so that by removing from place to place, the whole field can be manured and the animals sheltered. Shade-trees, moreover, may be scattered and accomplish the desired result. Herds do better where there *are* shade-trees than where they are *not*.

Great pains should be taken in the cleansing of the pails and other utensils made use of in the dairy. Pails as ordinarily cleansed are absolutely filthy. Without special pains be taken a gummy material will adhere to the seams of the pail, and acting as a ferment will be injurious. The injury will not be immediately apparent, but will be seen in the putrifaction of the cheese. Wooden pails for dairy purposes are a nuisance and should never be used. Tin is the best material for pails. There is not, probably, one in a hundred properly cleansed. Absolutely boiling water must be used, the pails must be scalded, then rinsed with cold water and thoroughly dried. Steaming as means of cleansing has been adopted by the Elgin Condensing Company and *should* be adopted by *every factory*.

Extreme cruelty, such as kicking the udder, will make itself evident in the bloody milk. A rap upon the spine has ruined many a cow and a kick on the udder produced many cases of the garget. Kind milkers only are wanted. It should be understood when a man is hired that as soon as he unkindly treats a single animal, he shall receive his discharge with a deduction from his wages. When cows take a dislike to their milker, he should be changed as they will withhold their milk. Cows should be milked in their regular order and at regular times. Loud talking and boisterous laughing should be dispensed with during milking as it frightens the cows. Do not drive cows to and from pasture faster than a walk. Dogs should also be dispensed with where dairying is carried on, as they often over drive the cows. No first class cheese can be made where cows are dogged to and from the pasture. The teats should be carefully washed or brushed before milking. Cleanliness should always be demanded in milking. In the manufacture of cheese acids have in some places been substituted for rennet and are used to some extent in Holland. But, it is thought that on the whole acids are not so good as rennet in the production of good cheese. The acids which have been used are muriatic, tartaric and acetic. Cheese from acids are firmer, sharper to the taste, of longer keeping qualities and more expensive; while cheeses from rennets are richer than acid cheeses and more delicate in flavor. Muriatic acid is used in making Dutch cheese. The rennets of weak calves should never be used, as they are very likely to be diseased. Only those of strong, healthy calves readily bring about coagulation. The stomachs should not be salted down in quantity. Care should be taken in the examination of the rennets as one bad one may contaminate all the others. Rennets should be saved from those calves only which have had all the milk they would drink for at least four days before and within twelve hours of the time of slaughtering. A starved calf will have a diseased stomach, which will impair the flavor of the cheese. To prepare rennet the stomach selected should be emptied and all specks removed. It may be blown up like a bladder or be slightly salted and stretched on a forked stick, and hung up in a moderately warm, dry atmosphere to dry. Stone jars should be used to hold the rennets when they are steeped as no first class cheese can long be made from rennets kept in wooden tubs, in consequence of the taint which will be communicated. The whey as it runs from the vat should never be used for steeping the rennets until the albuminous matter has been removed. New rennets should not be added to old ones. Rennets should not be allowed to float but should be kept down by a stone. It is best to prepare the rennets in March or February. Rennets should be prepared two months before using.

Associated dairying was first practiced in Switzerland and France and grew out of a necessity. It was found that good cheese could not be made from two or three cows and so a number of men who could keep but two or three cows each united their products and so formed the first associate dairy company. Associated dairying has been very successful in the United States. In cleanliness, care of milk and stock, the dairies of England are in advance of those in America; but in dairy machinery and its appliances American leads England. The charge for manufacturing cheese is generally 75 cts. per one hundred lbs., and sometimes $1.00 per hundred lbs. The art of cheese-dairying is to extract the butter and caseine from milk. The Germans like strong cheese. The English taste has changed materially within the last half century. It now requires a mild flavor and mellowness of texture, cheese that readily dissolves under the tongue, leaving a nutty new milk taste in the mouth. The quality of the cheese depends much upon the ripening. If properly ripened it is mellow, appears rich in butter and melts in the mouth. Cheese of the best material may be tough, poor and unpalatable if not well ripened. An analysis of English Cheddar cheese gives the following results: Water, 33 92; milk, sugar and lactic acid, .96; butter, 33 15; mineral matter, 3 85; caseine, 28.12. Total 100 00. There is 21.50 nitrogen in the caseine and 1.15 salt in the mineral matter. Good cheese then contains about 34 per cent. of water, and less than one per cent. of sugar of milk and lactic acid. One essential quality in cheese is that it be not likely to decay. American cheese is liable to decay. This defect, however, has been very much lessened within a few years. Cheese should keep for several months.

The American process of manufacturing cheese is similar to that carried on in England in the manufacture of the Cheddar cheese. Set the milk at a temperature of from 79 degrees to 82 degrees, and cut the curd before heat is applied. Raise the curd to a temperature of from 98 degrees to 100 degrees, drawing off the whey in half an hour. Then take the curd out to cool, after which put in press 10 minutes, grind it in the curd mill and after salting, (2 lbs. of salt to 112 lbs. of cheese,) put in press at a temperature of 65 degrees. We may learn from the Cheddar process 1st, to study the condition of the milk; 2nd, to set at a temperature of from 78 degrees to 82 degrees; 3d, to draw whey early; 4th, to expose the curd for quite a length of time to the atmosphere to perfect its acidity after the whey is drawn off; 5th, to put in press before salting at a temperature of from 60 degrees to 65 degrees; 6th, to grind in a curd-mill and then salt. The salt should not be applied when the curd is at a temperature above 75 degrees. The exposure of fine curd to the air improves the texture and flavor of the cheese.

Lecture VIII. Cheese Making.

One great trouble with which the cheese manufacturer has to contend, is that of floating curd. Floating curd is the result of tainted milk. The manner in which it has been successfully treated, is as follows: draw the whey early so that the acid may be developed by exposure to the air, and then grind in the curd mill. Heat does not cook or scald the floating curds. Floating curd, after being taken out of press, often rises like a loaf of bread, giving out a bad odor. The process adopted by Mr. Irons, a young Englishman, in heating floating curd, is as follows: Pack the curd in a large heap in the vat, leaving a space in the middle for the whey to drain off. In fifteen minutes invert this heap, without breaking, if possible. Let this remain until the acid develops, then break into three or four pieces to cool. After fifteen or twenty minutes remove it to the sink and break into small pieces. When the temperature falls to seventy or seventy-five degrees, it should then be ground in the curd mill, after which it should be salted, using two and a half pounds of salt for one thousand of milk. It is better though to put into press ten minutes before grinding. Mr. Moon, manager of the North Fairfield factory, uses the following process in the treatment of tainted milk. The milk is given a thorough stirring and cooled at night; in the morning, stir and heat the milk quite rapidly; add an extra amount of rennet, cut the curd and draw the whey closely; heat gradually to a temperature of ninety-eight degrees; let the lactic acid form more than usual; salt and expose to the air from one to three hours; put to press, and the next morning remove the hoop and perforate the cheese with a small wire, in order to allow any gas, which may be in it, to escape. Then take it to the curing room and treat as usual. The grinding of the curd in a curd mill is always essential where tainted milk has been used. In cheese factories where one or two vats are used, it will be convenient to use a vat with the heating apparatus attached. In large factories a steam boiler is employed; it is better to heat with hot water than by any other method. Among the self-heaters the Oneida vat is liked very much. The curds should be made acid, for if they are not they will be *soft*. When the curds are too sweet, some whey should be applied; the application is not so much needed at the factory as at the farm, since the milk in being transported to the factory approximates more or less to an acid character. When the milk has been reduced at night to forty-five degrees, some whey may be used in the morning; it must not, however, be used at random. When skilfully used it produces excellent results. The animal heat should be divested from the milk at night, for cheese manufacture. There is no objection to using pure annotto for coloring, but the article is very often adulterated, sometimes making a poisonous preparation. The manufacturer of cheese should therefore guard against using an impure article. A recipe for the preparation of annotto is as follows: To four pounds of annotto add two pounds concentrated potass, five ounces saltpetre, one and a half pounds sal soda and five gallons boiling water. Put the ingredients into a tub, pouring in the boiling water. Envelop the annotto in a cloth and as it dissolves squeeze it into the liquid. Two ounces is sufficient for one hundred pounds of curd. Another recipe is, to eight pounds of curd annotto add three pounds Barrett's concentrated potash, putting the mixture into a cask; pour on boiling water and stir frequently until it is all dissolved; dilute this with water, so that one pint will color four hundred pounds of milk. In coloring cheese, the standard of the desired shade is fixed by trial. The knife formerly used to cut curd with was made of wood. Various kinds of implements have been devised, but the one which gives the greatest satisfaction is the gang of steel, polished blades, which cuts the curd in a very smooth manner. Perpendicular and horizontal knives are used together, and give general satisfaction; they save labor and do the work well. The object of using knives is to favor the escape of the whey. The term "cooking" applied to the warming of the curd, is a misnomer; neither milk nor curd is cooked; no part of the process requires a temperature above one hundred degrees. Fine quality and good flavor are not obtained by a high temperature. Neither butter nor cheese are improved by cooking; heat is used to favor the expulsion of the whey by inducing a certain degree of acidity. The separation of the whey from the curd should be slow, otherwise a loss of oily particles will result—consequently heat should be applied gradually. If cheeses are good, whey will not leak out after they are taken from the hoops. If the acid is developed too long, too much whey will leave the cheese, and if not long enough, too much will be retained. Salt is used to give a flavor to the cheese and to prevent its putrifaction. Some foreigners like strong or tainted cheese, but such is not generally the case in America. The salt should be applied when the curds are cool, seventy-five degrees being the maximum temperature—it hardens warm curds. Whey should be thoroughly expelled before salting, as much of the salt will be lost in the escape of the whey. Too much salt prevents the early ripening of the cheese, consequently the amount should be adapted to the purpose. Salt checks the acidity of the curd. In spring it requires from two to two and a quarter pounds, and in hot weather from two and a half to two and seven-tenths, and sometimes three pounds of salt for one hundred pounds of curd or green cheese. In England one pound of salt is used to every fifty-six pounds of curd. Salt is not always pure even though it may appear clean. Common barrel salt should not be used for either butter or cheese. The Ashton and Liverpool brands of salt are good. Salt should be purchased only of reliable dealers. The Onondaga manufactory in New York, makes a very good article. This is a much cheaper salt than the imported kinds, and the best grades are reliable for dairy purposes. Salt should be dry, fine grained, crystallized, of a clear white color and without odor. The milk agitator which is used to prevent any rising of the cream is largely employed in cheese manufactories. Ice, when used to cool milk, should never be brought in direct contact with the milk; it should be placed in coolers. Meat which has been preserved by means of ice, rapidly decomposes when exposed to the temperature of the air; it is the same with milk. Milk which has been cooled by means of ice, will more readily injure the cheese into which it shall be made. No surfaces so cool as ice should be allowed to touch milk.

For the Maine Farmer.

Small Things.

"Sands make the mountains, minutes makes the years."

INDIAN CORN. Plant corn of different sorts together to impregnate late silks. Some plant corn while hoeing for the same purpose.

SCIONS. Nip off the end of scions when too thrifty, to keep them from breaking down by their own weight, or from winter-killing from being too tender.

PRUNING. After the middle of June use the jack-knife, but not too much. My scions have done best when I removed the largest limbs nearest to them, as soon as the scions have leaved out.

FARM WORK. Exchange work. In the island of Jersey, off the coast of France, farmers will not work for money, but will exchange with each other. They are a prosperous people.

HARROWS. Is a harrow of use in mellowing the soil? Does it compact the soil? A cultivator lifts like the plow.

SOILS. Surface soil and subsoil do well mixed. Each is deficient in what the other contains.

PLANT LICE. Plant lice kill more apple trees than the borer, at least, in this section. Where is the remedy?

THINKING. Does the farmer know that thinking along with working, conduces to long life.

CROWS. A farmer's presence by sunrise, or in foggy days

The Maine Farmer.

Augusta, Saturday, July 16, 1870.

TERMS OF THE MAINE FARMER,

$2.00 in advance, or $2.50 if not paid within three months of the date of Subscription.

☞ *These terms will be rigidly adhered to in all cases.* ☜

All payments made by subscribers to the FARMER will be credited in accordance with our new mailing method. The printed date upon the paper, in connection with the subscriber's name, will show the time to which he has paid, and will constitute, in all cases, a valid receipt for moneys remitted by him.

☞ A subscriber desiring to change the post office direction of his paper must communicate to us *the name of the office to which it has previously been sent*, otherwise we shall be unable to comply with his request.

COLLECTOR'S NOTICE.

Mr. J. F. NUTT is now in Hancock County.

Mr. V. DARLING is now canvassing in Oxford county.

A Quarrel in Europe.

It is now nearly two years since the successful revolt of the Spanish army and navy, and the deposition of Queen Isabella. During this period Spain has been ruled by a provisional government, of which that inscrutable man, General Prim has been the life. There has been among the Spanish people and in the Cortes, a strong republican party, but Prim and his associates, and the majority of the constituent Cortes are avowed monarchists, and are, if we may take their words for it, only waiting to find a willing and acceptable candidate for the vacant throne. One prince after another has been tried and dropped as unavailable; and the last named, advanced by Prim, has excited a great commotion.

The Prince of Hohenzollern, whose principality is now an integral part of the Prussian kingdom, and who is himself an officer in the Prussian army, is the new candidate. On his mother's side he is related to Murat, the great Marshal of Napoleon I; on his father's side, to the royal family of Prussia. His relations to Prussia are so intimate that should he become king of Spain, he would undoubtedly cultivate the friendship of Prussia rather than that of France. Napoleon III, who has ever since the last war between Prussia and Austria, been jealous of the rapidly growing importance of the former, bristles up and declares that he will not consent to the elevation of a Hohenzollern to the throne of Spain, and addresses himself to Prussia as the responsible party in the business. Prussia replies, if we can trust the reports, that she has nothing to do with it, but intimates that if Prince Hohenzollern and the people of Spain agree to assume the relation of king and subjects, she will support them.

If then the Spanish Cortes gives the crown to the Prince of Hohenzollern, we may expect a fierce war between France and Prussia. But it is quite likely that he will fail of an election, and thus peace be preserved. To overcome the opposition of the Spanish republicans, and the partizans of other candidates, together with the influence of France, which will certainly go for something, will require greater strength than the German prince is likely to develop.

The sympathies of America will, we think, be with Spain and Prussia. If the cable has told us a true story, the Emperor of France is meddling with that which is none of his business. The people of Spain have a natural right, we hold, to decide, not only what shall be their form of government, but who shall be their ruler; and when their choice is made, fair play says "hands off."

STATE AGRICULTURAL FAIR. The Trustees of the Maine State Agricultural Society, held a meeting in this city, on Wednesday of last week, at which most of the preliminary arrangements for the State Fair were completed.

The Fair and Show will be held in Augusta on the 20th, 21st, 22d and 23d of September next.

The following officers have been appointed:

General Superintendent—S. T. Holbrook of Oxford.

Superintendent of Cattle Department—Warren Percival of Vassalboro'.

Superintendent of Hall—Samuel Wasson of Ellsworth.

Committee of Reception—His Honor Mayor Titcomb, Alderman Swan, Councilman Bicknell, Col. G. W. Stanley, Hon. Thomas S. Lang, Allen Lambard, Esq., L. W. Lithgow, Esq., Col. H. A. DeWitt.

Committee of the Press—Jos. A. Homan of the Farmer, E. F. Pillsbury of the Standard, Howard Owen of the Journal, O. B. Quimby of the Banner.

Committee on Pedigree—John F. Anderson of Portland, S. W. Coburn of Skowhegan, Frederick Buck of Orland.

The object of the special committee on pedigree is to examine such pedigree of thorough-bred stock as may be entered, in order that no spurious pedigree may be imposed upon the several committees in the different classes of stock.

The Chief Marshal and assistants will be appointed at a future meeting of the Board. All arrangements relating to the ticket department are under the control of the Treasurer of the Society, Hon. Wm. E. Morris of Portland.

By order of the Governor and Council, the free use of the State House has been granted to the Society, subject only to the decision of Gen. Harris Superintendent, who will retain sufficient room for the accommodation of the different departments. Gen. Harris is disposed to give up every inch of room that can be spared. In the State House will be the general exhibition of Fine Arts, needle-work and manufactured products, fancy goods, household fabrics, fruit, &c.

In the rear of the State House a large tent will be pitched for the display of agricultural and other implements and machinery which will be a most attractive feature of the show.

Over 100,000 feet of lumber will be required for the stalls, pens, &c. This lumber is now being sawed by Ira D. Sturgis, to whom the contract has been awarded.

On three evenings of the fair there will be Farmers' Discussions in the Representatives' Hall, at which practical questions will be discussed by the best farmers in the State. The annual address will be delivered on Friday, by whom, is not yet known.

In outside prizes, a special one will be offered for the best gentlemen's driving horse, speed not to be considered. The prize will consist of a splendid harness worth $100.

Two hundred committee men have been appointed. The names of these, with the programme and other matters connected with the exhibition will be published in due time. The Board will meet here again on the 8th of August, and will remain in session until after the show.

THE SUPPLY OF ICE. The people of New York are in the hands of the ice dealers. The latter have recently advanced the price of ice delivered to families and business men to thirty dollars a ton, whereas, last year their customers groaned at a charge of six dollars a ton. The dealers assert that ice is very scarce and that they are forced to raise the price. It is however very generally believed in New York that the two great ice companies that supply Brooklyn and New York have an ample stock on hand obtained at figures that render the late advance a gross extortion.

Persons in the ice business on the Kennebec river need have no fear but they can in future sell all the ice they choose to cut at prices which will be remunerative if they conduct the business with decent economy. There is no river in the country where the facilities for cutting and storing ice are so great, and the Kennebec producers can underbid almost anybody. Machine ice cannot be produced with anything yet invented at less than five dollars per ton, and can hardly be put into the market at less than eight or ten dollars. This ice can therefore never compete to the injury of the business of cutting ice on the Kennebec.

☞ We are glad to be able to congratulate our friends, the publishers of the Daily Kennebec *Journal* upon the successful results of their enterprise. The paper has been published six months, has proved itself a public and business necessity and may now be regarded as an established institution of our city. We hope it will continue to receive a liberal and paying support.

Augusta and the Fishway again.

The City Government of Augusta has agreed to assume the expense of making a fishway in the dam, or defending against the want of it, and the proprietors of the dam will immediately proceed to rebuild it.

It may be of interest to the public to know that some of the citizens who have interested themselves most in this matter are opposed to the construction of a fishway by anybody, and have expressed the confident expectation of being able to defeat it. We are however unwilling to believe that the people of Augusta are so mad as to set themselves in opposition to the wishes of other communities on the river, both above and below, and to attempt to perpetuate the wrong that has existed for thirty years in the shape of an *impassable* dam across the Kennebec, which they have no more right to maintain than Bath has to maintain an impassable bridge.

One word in relation to the object of the fishway. It is not simply, nor mainly, as some suppose, to give the people up river the chance of catching a part of the fish that are now caught below the dam. The main purpose of a fishway is to allow the fish to ascend the river to their breeding grounds that they may increase in numbers. The breeding grounds of salmon lie on gravelly shallows in running streams; those of shad in fresh rivers of gentle flow; those of alewives in ponds, and to a small extent in quiet rivers. If any of these fishes are entirely cut off from their breeding grounds they will certainly be exterminated. The great decrease in all of them in the Kennebec river is mainly owing to the impassable (or nearly impassable) condition of the dams. On the Penobscot river ten times as many salmon are now caught as on the Kennebec, and the only apparent cause of this difference is in the character of the dams, those on the Penobscot being surmounted by salmon with comparative ease during a portion of each fishing season. The benefit of an increase of fish would mainly accrue to the people of Sagadahoc county, whose position will always enable them to catch more fish than those who live further up the river; but the latter will share in the benefits.

To those who think the fisheries of small prospective value, we commend the perusal of the following extract from the last report of the Commissioner of Fisheries:

"The salmon fisheries of the river Galway, in Ireland, are owned by Thomas Ashworth, who came into possession of them in 1852. They were in an exhausted condition. Mr. Ashworth had good fishways built over the dams, of which there was one at the head of the tide, had the fishing restricted, and protection given to the fish on their breeding grounds. The produce of this fishery rose in the twelve years succeeding 1852, from 1,603 to 20,512 annually; and this in spite of a Jam at the head of the tide where five-sixths of all the water is used by mills and canals, only the *one hundred and sixtieth part* running through the fishway where all the salmon must pass; in spite of civilization; in spite of the disappearance of forests and the cultivation of the land. The fishways through which pass all salmon that ascend this river, is supplied with water by a gate *two feet square*, and through this aperture 40,000 salmon are estimated to have passed in one year.

"Now compare the Galway with the Penobscot and Kennebec. The Galway drains less than 1000 square miles of territory, the Penobscot 8,200 square miles, the Kennebec 5,250 square miles. A simple calculation shows that if these yielded salmon in proportion to the extent of country drained by them, the Penobscot should yield 168,000, and the Kennebec 107,000 yearly; while in the same proportion the number of salmon produced for the market by the whole State, excluding that portion drained by the Saint John, would be 500,000. The number now produced in the State does not exceed 10,000. The total annual returns from the salmon fisheries of Ireland are estimated at £300,000; from those of Scotland £500,000."

☞ The Assessors of this City have completed their valuation of real and personal property and the tax lists have been made out and placed in the hands of the City Treasurer for collection. The following exhibit has been furnished by the Assessors for publication:

Valuation of the city, 1870		$4,320,043 00
Per cent. of tax, 2½ or 25 mills.		
Giving a tax of		108,001.07
To which add 1555 polls at $3,		4,665 00
Making a total tax of		$112,666 07
The above amount is shown as follows:		
State Tax,	$29,303 87	
County Tax,	6,878 74	
	$36,182 61	
Appropriated by City Council,	73,409.00	
		$109,591 61
Fractional overlay,		$3,074.46

Last year the per cent. of tax was twenty mills and nine-tenths of a mill. We have gained in valuation since last year about $34,000, but will fall short of the valuation put upon the city by the State Commissioners in the sum of $560,000. It is to be hoped that some reduction will be obtained on this excessive valuation of the Legislature next winter.

The above city tax of 2½ per cent. does not include the Village District tax, which is 28 cents on each $100 valuation and $1.80 on each poll, making the entire per centage of taxation on the city and village district valuation, $27,80 to each $1000, and $4.80 to each poll.

☞ Friend J. D. Lang of Vassalboro', is probably the largest breeder of Jersey stock in Maine. He has about forty Jersey full bloods and grades, eighteen of which are in milk—the remainder being yearlings and calves. He informs us that his Jerseys average about twelve pounds of butter per week, and from seven quarts of the milk of one of his full bloods he has made this season two pounds and one ounce of butter. Friend Lang is in other respects one of our most progressive farmers. He has four acres of white winter wheat nearly ready for the harvest—the handsomest headed grain we have seen this season. He sows his grain in drills, using the New York patent drill, by which he effects a great saving of labor and seed in sowing. The seed is all covered to a depth of two inches, thus protecting it from drouth and frost. It is strange that the wheat growers of Maine do not more generally adopt this method of cultivations.

A GENEROUS GIFT. We learn that our venerable townsman, Allen Lambard, Esq., has purchased the Dr. Snell estate on Winthrop street as a preliminary step towards the founding of a Home for Aged and Indigent Women in this city. The price paid by him for the property we understand was $6000, and he proposes to fit it up and furnish it completely at his own expense, making a free gift of it for the purpose above stated on condition that a sufficient fund shall be contributed for the permanent support of such an institution. It is hoped and believed that the generous desires and intentions of the benevolent donor will be promptly responded to by those of our citizens who have the ability and the disposition to give of their abundance for so praiseworthy an object.

☞ The highest corporation tax assessed in this city, for the present year, is that paid by the A. & W. Sprague Manufacturing Company, amounting to $5,848 63. The Portland & Kennebec Railroad Company's tax is $1,172.50. A tax exceeding 1000 is assessed upon the following individuals: Allen Lambard, $1,820.30; Jas. W. Bradbury, $1,239.35; Henry R. Smith, $1,348.75; George W. Stanley, 1,113.39; J. H. Williams, Trustee, $2,353.11.

☞ Mr. Cyrus Arnold, an aged resident of this city, committed suicide on Saturday forenoon last by hanging himself. As we learn the facts, Mr. Arnold, who was poor and infirm, was dependent upon his children for support, and they having become tired of the burthen, proposed to relieve themselves of it by sending him to the poorhouse. This so wrought upon the poor old man as to cause a temporary aberration of mind, under the influence of which the deed was committed.

VACATION TIME. Rev. Dr. Rickes, pastor of the First Baptist Church, is now enjoying his summer vacation of several weeks in a journey to the West. His pulpit was supplied last Sabbath by David G. Cargill, Esq., a lay member of the parish.

The Winthrop Street Universalist Church will be closed for the four Sundays next ensuing, Rev. C. R. Moor being also absent on his vacation.

☞ Miss Florence Wallis, Miss Addie E. Pillsbury, and Miss Addie E. Blake, three of the High School graduates this year, have been assigned schools in the Village District at the commencement of the fall term.

☞ The piers of the new railroad bridge are nearly completed to the required height for the iron superstructure, the work on which will probably be commenced next week. Vessels are expected to arrive with the iron the last of the present week.

ANNIVERSARY AT ST. CATHERINE'S HALL. The Anniversary Exercises at St. Catherine's Hall in this city last week were of a very interesting character. On Tuesday evening an introductory service was held in St. Mark's Church, a large audience being present including the young ladies of the School, accompanied by their teachers. Bishop Neeley preached an appropriate and eloquent discourse from Luke 10: 31—"And she had a sister named Mary, which also sat at Jesus' feet and heard his word."

The graduation exercises took place on Wednesday afternoon in the presence of many parents of the pupils and friends of the School. Bishop Neeley presided on the occasion. The following is a programme of the exercises:

1. Music.
2. Overture—"Massaniello." (four hands,) Misses Lerned and Dixon, Auburn.
3. Prayer.
4. Chorus—"Joy, Joy, Freedom to-day," from "Gipsey's Warning." Class. Benedict.
5. Composition—Little Things.
6. Composition—Glimpses into the World of Books.
7. Piano Solo—"Home! Sweet Home!" Miss M. Simmonds. Thalberg.
8. Composition—Women of History.
9. Composition—The Battles of Life.
10. Solo and Chorus—From "L'Elisire D'Amore." Miss Lerned and Class.
11. Composition—The Record of the Rocks.
12. Conferring of Diplomas.
13. Parting Song—Graduating Class. I. I. Ensign.
14. Doxology.
15. Benediction.

Rev. Mr. Upjohn and James Bridge, Esq., read the compositions which were all very fine and upon practical subjects.

The musical part of the exercises, both vocal and instrumental, was well sustained, and showed that this necessary art is carefully taught in the school. The Bishop then conferred diplomas on the following young ladies: Mary J. Houdlette, Richmond; Alberta Wolbaupter, Portland; Susie P. Clement, Portland; Harriet J. Dixon, Damariscotta; Catharine Murdoch, Portland; Emma J. Walker, Augusta; Anna J. Perry, Gardiner.

In conferring the diplomas the Bishop expressed his great satisfaction with the school. He did not like boarding schools; thought them poor places for pure girls; but he was sure, from a close inspection of St. Catherine's, that a young lady was as safe within its walls as anywhere outside of the influence of the best of homes. The course of study was equal to the best schools of its class in the country. It was also the aim to give to the pupils a Christian education. He also complimented the teachers on their success.

In the evening the pupils gave a reception to their friends, which was largely and brilliantly attended.

The school is now in a most prosperous condition. The vote at the last term thirty-four boarders and twenty-five day scholars, with a prospect of an increase at the commencement of the fall term in September, which will necessitate more room. This the trustees will provide, and everything will be done to sustain the high reputation which the institution has acquired during its brief history.

☞ The Centrifugal Hand Power Machines, which are still on exhibition by the Messrs. Smith, proprietors, in this city at the store on Water street, one door south of the First National Bank, continue to attract the attention of those who are interested in mechanical improvements, and to win golden opinions from all sorts of people. A very successful practical test of the utility of this power was made a few days since. Mr. Wm. H. Vivian, a master builder and mechanic, had some inch stuff, three feet in length, which he desired to split into three-inch strips. One hour with this machine enabled him to do the work, which with a common saw and by the ordinary process would require one man a whole day to perform. The lumber was cut in good shape. Mr. Vivian is of the opinion that a great saving of lumber can be made by a carpenter residing out of the range of power shops, who is furnished with this machine, and gives the following statement of its value as a cheap and available labor-saving power:

AUGUSTA, Me., July 8, 1870.

TO ALL WHOM IT MAY CONCERN. I have this day made a thorough practical test of the merits of the sawing machine now being exhibited by H. & C. T. Smith, at 165 Water street. With one man to assist me we sawed what would be equivalent to 500 feet running measure of inch board, in less than one hour. I never had a man in my employ who would do the same amount of sawing in ten hours, to say nothing of the superiority of the work and the saving of the lumber, which was fully twenty-five per cent in favor of the machine. W. H. VIVIAN.

CIRCUS AND MENAGERIE. The famous Caravan and Circus of George F. Bailey & Co, is now on its twenty-second annual tour and will make its grand entree into this city on Tuesday, July 19th. Among its wonderful curiosities are a monster rhinoceros, two elephants, &c. But special mention should be made of the four baby lions, only four weeks old. These descendants from the original lawful owners of the forest are indeed a curiosity. They are taken from the cage and are handled by the spectators with perfect safety. Even the children play with them. In the grand procession the elephants will appear, harnessed to and drawing the great Roman chariot, which will contain Wither's Regimental Band in full uniform. A herd of dromedaries, all the elegantly ornamented animal cages with plumed horses and uniformed drivers, and the entire circus cortege, will follow, making a procession nearly one mile in length and presenting one of the most animated scenes ever witnessed upon our streets. Not only is this one of the best menagerie which has visited this section of the country for years, but it has other attractions which are worthy special mention and commendation. Connected with it is a circus which has thirty male and female performers, trick horses and ponies, &c., and is the largest in the world. The enterprising manager knows the road to success. He gives the public a first class entertainment. The circus and menagerie is only one price, and only one ticket is required.

☞ At a special meeting of the City Council, held on Saturday afternoon last, an order was passed by which the city of Augusta agree to "assume the expense of making a fishway on the Kennebec Dam, or of defending against a want of it, upon condition that the owners of the Dam proceed at once to complete and repair it, and then to go forward in the erection of the new factory."

The action of the City Council has been promptly followed by active movements on the part of Col. DeWitt, the Agent of the Sprague Company. Early on Monday morning work was commenced in the erection of the stone bulkhead at the West end of the dam, which is an operation of considerable magnitude and importance, and we understand preparations are being made for the immediate reconstruction of the dam, and the restoration of the water power, the lack of which since the destructive freshet of last winter has had such a depressing effect upon the business enterprise and industry of our city.

☞ The city authorities have commenced the preliminary work necessary for the long needed establishment of a complete system of drainage in Augusta. It will be remembered the subject was discussed in Mayor Titcomb's annual address last spring, and a recommendation made for a survay by a competent engineer for the purpose of obtain the necessary data for the proposed work. Mr. Natt. Abbott, an engineer connected with the A. & W. Sprague Company's works, is now engaged with his assistants in making this survey, the plans thus obtained being intended as a basis of future operations, until the grading and drainage of the streets of our city shall have been established upon a uniform and thorough system.

☞ A large number of distinguished gentlemen whose present or former honorable connection with the press in various parts of the country entitle them to the distinction, have been invited to attend the Convention of Maine and New Hampshire editors and printers at Rye Beach, July 27th and 28th, many of whom have accepted the invitation. Mr. Speaker Bline will be present, and will speak, although he objects to being announced as the orator of the day.

☞ The new post office is so far completed as to be open for the public use. It is one of the best arranged and most convenient offices for business in the State, and great credit is due to Mr. Bicknell, our popular postmaster, for his energetic and persistent efforts for the accomplishment of so desirable an improvement.

☞ Admiral Dahlgren, of the United States Navy, died in Washington on Tuesday morning last of heart disease.

THE BUCKEYE MOWER. The reputation of the Buckeye Mower for draught being unfavorable to its sale, the company manufacturing it at Worcester, Mass., have taken great pains during the last three years to lighten it, and at the same time to preserve its strength. This has been done with all the caution and certainty of Mr. Richardson. Satisfied that they were building the lightest drawing machine in its class, they have given instructions to their agents to have trials at the various points in this State, where they seemed to require it, and the following is a statement which they send us of the results:

At Farmington they met the Wood's Mower, where our statement of draught was 150 pounds, and theirs 200 pounds. At Strong and Phillips, no machine appeared against us. At Auburn, on the 4th of July, the Kniffen answered our invitation, and the Buckeye's draught was thirty-three per cent. lighter of the two. At Augusta, July 11th, the results were as given in the committee's report, which is herewith appended.

RICHARDSON MAN'F'G CO.

AUGUSTA, JULY 11, 1870.

The undersigned committee agreed upon by the several parties interested, having witnessed the performance of four mowing machines, this day in this city:

To wit: the Buckeye under charge of Messrs. Williamson & Greenwood of Augusta, agents for the sale of same.

The Clipper under charge of J. H. Gilbreth of Kendall's Mills, agent for sale of same in several counties, and by C. W. Safford & Son, agents in Augusta. The Wood under charge of S. S. Brooks & Co., Augusta, agents for the sale thereof.

And the Sprague machine under charge of H. A. DeWitt, agent, do hereby certify that the work done by the several machines appeared to be all well done so far as we could discover, without the ground being raked. The machines were also tried on a piece of rough and swail ground (not soft) and cut the grass well considering the chance; after which the three first named were tested as to the power of draft required by a dynanometer, which showed that 200 lbs. was required for the Buckeye, 250 lbs. for the Wood and 250 lbs. for the Clipper. The Buckeye cutting is claimed 4ft. 1in., the Wood 4ft. and the Clipper 5ft. These machines were all two horse machines.

There was but one one-horse machine on the ground, a Clipper, and that was not used enough to test its quality. What little it was used was on rough ground, and with a horse unused to work.

We are of opinion that the Buckeye Machine as constructed and operated, is entitled at the present trial to our first recommendation, and the Clipper next, and that the other two machines, both doing their work well, are good machines. There being but one one-horse machine Mower present, a Clipper, it receives our first recommendation as a one-horse mower.

JOSEPH W. PATTERSON,
MOSES H. HARLOW,
CHAS. O. SMALL.

RIOT IN NEW YORK. A dispatch from New York of Tuesday says the Orangemen of that city were celebrating the Battle of Boyne at Elm Park on that day, when they were attacked by a party of 300 Irish laborers whose anger had been roused by some expressions by Orangemen, insulting to their nationality and faith. The assailants used stones and the implements with which they had been working, and the Orangemen defended themselves with their pistols. Thos. Grady was shot in the head and instantly killed; also John Brady, a boy 14 years old, together with another man, name unkown, and four others were fatally injured, and a large number of others were slightly injured. The police surrounded the spot and succeeded by a vigorous use of their clubs in quelling the riot. Subsequently cars conveying Orangemen down town were attacked and several persons wounded and the cars badly damaged. Thomas Kane was met in Central Park by Orangemen and fatally stabbed. The affair created the wildest confusion in the neighborhood of its occurrence.

From the latest account received at the police headquarters up to midnight, it appears that the riot assumed more serious proportions than at first supposed. There are two versions of the difficulty. Superintendent Jourdan states that the Orangemen played party tunes and used insulting and ungentlemanly words, and finally threw stones at the workingmen and fired several shots before any attack was made. The workingmen assailed the Orangemen with spades, shovels, and every available weapon. The Orangemen used revolvers, with which nearly all were armed.

Capt. Helme states that the workmen were the assailants, and after two or three hundred of them had stormed the Park and driven 2000 out, fighting was carried on in a scattered manner. During these skirmishes some hundreds were wounded and several killed, but the full particulars have not yet been ascertained. Three workmen are known to have been killed and five taken to the Bellevue Hospital in an insensible condition. The wounded Orangemen were taken from the field of conflict in carriages, and therefore it is impossible to ascertain their number, but so far it is believed that no Orangemen were killed.

THE OCEAN YACHT RACE. The English yacht Cambria and the American yacht Dauntless, started from Queenstown on their ocean race on Monday afternoon, July 4th, at 2 37 o'clock, P. M. Both were under mainsail, foresail and gibs, the Cambria carrying in addition a gaff-topsail. The Cambria was a cable length on the weather quarter of the American yacht. Both started on the starboard tack. The Cambria sailed badly and the Dauntless made much lee way, showing her inferior weatherly qualities. At the expiration of twenty minutes the Cambria went round on the port tack, and the Dauntless held on five minutes longer, and then followed the Englishman. The weather became thick and when last seen the Cambria had again crossed the Dauntless. The latter appeared the fastest of the two, but the Cambria showed better weather qualities.

HORACE GREELEY'S DREAM. Horace Greeley has had a dream which it would be very desirable to see practically realized. It is a dream of hay-making. He says:

"In my dream, the grass is raked and loaded nearly as fast as cut, drawn to the barn-yard and there pitched upon an endless apron, on which it is carried slowly through a drying-house, heated to some 200° Fahrenheit by steam or by charcoal in a furnace below, somewhat after the manner of a hop-kiln. While passing slowly through this heated atmosphere, the grass is continually forked up and shaken so as to expose every look of it to the drying heat, until it passes off thereby deprived of its moisture and is precipitated into a mow or upon a stack-bottom at the opposite side; load after load being pitched upon the apron continuously, and the drying process going steadily forward by night as well as by day, and without regard to the weather outside. I do not assert that this vision will ever be realized; but I have known dreams as wild as this transformed by time and thought into beneficent realities.

☞ The lay delegation question in the Methodist church has been carried by the requisite three-fourths vote. The German and Swiss Conference at Carlsruhe, the last to vote on the admission of lay delegates to the General Conference, cast all its thirty-nine votes in favor of the change; and the entire vote of the ministry of the church is 4,946 for and 1,589 against lay delegation; a majority of more than the three-fourths required to sanction a constitutional reform, the lay members of the church and the General Conference having already voted in favor of it.

☞ The bill which has been pending for some time in Congress, for the payment of the amount due the State of Massachusetts by the United States, for interest on expenditures during the war of 1812, has passed both Houses, and is now a law. The amount obtained by the passage of this bill is $878,852, all of which has been assigned by the State of Massachusetts to the European and North American Railway, and will be expended by the company for the completion of its work.

WESTBROOK SEMINARY. The attention of our readers is called to the advertisement of the Fall Term of Westbrook Seminary. This is one of the oldest and best endowed institutions of its class in the State, and under the management of the present Principal, Rev. J. C. Snow, and his accomplished assistants, its well established reputation will be maintained, and it will continue to deserve, as it has always received, the generous patronage not only of the Universalist denomination, but of the people of all denominations.

AN OLD BILL. We saw yesterday, in the hands of one of our city merchants, a two dollar bill on the Kennebec Bank, Hallowell, which "failed" as it was then called, now known as "suspended," nearly fifty years ago. The bill is dated Oct. 7, 1824, is payable to A. Nourse, and signed by J. Robinson, Cashier, and R. W. Warren, President. It is very much worn.

☞ We should have said in our acknowledgement last week of Mrs. Harvey N. Leighton's acceptable contribution to our portmanger, that it was a two-year-old Jersey and Durham heifer, from the milk of which 9½ pounds of butter was made in one week.

Items of State News.

Mrs. Louise Smith of Buxton, died in Auburn last week, from the effects of injuries sustained a few weeks ago by being thrown from a carriage at Danville Corner. The *Journal* says Mrs. Smith was a woman of remarkable energy, and by her own unaided efforts has educated her four sons, each of whom has graduated from College with credit. Two of them are now in the Gospel Ministry, and one a physician.

The Saco *Independent* learns that on Thursday night at about 10 o'clock, the house and barn on the farm recently owned by Benjamin Day in Waterboro', belonging to Z. Folsom, was destroyed by fire. The house was unoccupied and nearly new. The fire was undoubtedly the work of an incendiary.

The Belfast *Age* says a young lady, daughter of Capt. Lempher of Stockton, narrowly escaped drowning last Sunday, near Brigadier's Island. She was being rowed out in a punt to a sailboat, when the frail craft overturned and she was thrown into the water. She was rescued with much difficulty, after she had sank the third time, by Mr. Eleazer McGilvery of Belfast.

In Fayette, June 30th, while four men were engaged in shingling the roof of a two story house, building for Martin H. Kent, the staging gave way and three men were precipitated to the ground, a distance of thirty feet, landing among the stones and debris below. Arthur D. Kent was badly injured in the back, Fred G. Palmer, elbow dislocated and fractured, W. H. Stevens escaped with slight injury.

Winthrop has voted to exempt Mr. Bailey's new oil cloth works and stock from taxation ten years, and also that the Winthrop Agricultural Works shall not be raised on the valuation for ten years, provided Mr. Whitman, or persons holding under him, shall add thereunto.

The Saco *Independent* says the ship yard at Kennebunk Landing, which has been used about one hundred years for building vessels, has this summer been fenced up, and is now a pasture. The last vessel built there was in 1867.

The Saco *Independent* learns that on Saturday, 25th ult., the house of George Libby in West Buxton, was struck by lightning and badly shattered.

An order was received at the Kittery Navy Bard on Thursday from Washington, to concentrate all the available force for the purpose of fitting United States Steamers California and Narragansett for sea by the first of August. To carry out this order, a much larger force than is employed there must be put at work at once.

The wife of Mr. George O. Payson of Rockland, committed suicide by drowning at Rockland, Wednesday night, while laboring under mental derangement. The body was recovered.

The mysterious breakage of the French cable is explained by an item in the Camden *Herald*, which says that the schooner Leaping Water, Hopkins, just returned from a voyage on the Banks, reports that in weighing anchor on about May 28th, they hove up a telegraph cable which parted before it could be cleared from the anchor.

Pateuts were granted last week to Luther F. Pingree of Portland, for artificial leg; Levi Abbott of Lewiston, assignor to the Lewiston Machine Company of same place, for warping machine; Geo. A. Blake and Wm. B. Taylor of Calais, for heating stove; Chas. M. Hayden of South Thomaston, for steering apparatus.

The Augusta *Journal* says that at West Waterville the Fourth of July demonstration was of the humorous sort—all about the Waterville bridge question. Our correspondent says words would fail to convey an idea of the appearance of the motley crew of Fantastics that collected, or of their curiously constructed vehicles. Banners were in abundance, bearing inscriptions somewhat personal in some cases.

The Bangor *Whig* states that on Friday of last week, one of the owners of the Lisbon paper mill made an application for $10,000 additional insurance on the property, in the same office that insured the other policies, which was granted. A few hours afterwards, a dispatch was received from Mr. Denison stating that the mill was burned. Mr. Parsons at once went back to the insurance office and stated the facts. The officers informed him that the additional insurance was good, and upon his giving a check for the premium, the policy was handed to him. This makes the whole insurance $48,000.

The Bath *Times* says Thursday night the store of Chas. O. Lowell at Small Point, was destroyed by fire, also a fish house and another unoccupied building. Mr. Lowell was Post Master and the office was in the store. Nothing was saved excepting one mail bag; everything else in the post office was destroyed. The loss is estimated to be about $800.

The Dover *Observer* says the house, barn, and outbuildings of Moses N. Parker of Garland, was destroyed by fire on Saturday night last, at about 11 o'clock. Loss $1,200; insured, $300. It is supposed to have been the work of an incendiary, and one William Hinds was arrested, but discharged for want of evidence.

A Searsport letter to the Bangor *Whig* says a man named Samuel Randell died on board schr. Stephen E. Woodbury, June 4th. He was mate of the vessel, but a stranger to all on board, and nothing about his effects to tell where he belonged. Any further information can be obtained of Wm. McGilvery, Searsport.

Sewall Morse, who was recently appointed Post Master at Winnegance, vice Stephen Lowell, resigned, died on Saturday last.

The bodies of the three men drowned at Island Falls on the morning of the 4th, were picked up at Grand Falls on Sunday.

Lewiston is to have a new city building, at a cost of from $100,000 to $150,000.

The Gardiner *Reporter* states that Mrs. Elizabeth W. Crane, of Warren, aged 77 years, visiting at her son-in-law's, Josiah Maxey, Esq., in Gardiner, met with an accident last Saturday afternoon which caused her death. The old lady was nearly blind, but always insisted upon going up and down stairs alone. While going down stairs that day, she accidentally missed the lower step and fell to the floor, dislocating the hip bone. She died from the effects of her injuries.

The body of a boy about five years old was found in Nebraska boom on the Penobscot on Sunday. It had apparently been in water about two weeks.

A little son of William Runnels in Georgetown, about twelve years of age, while sailing a float across Back river in that town Friday, fell into the water by slipping his oar, and was drowned. A younger brother who was with him at the time, jumped in and attempted to rescue him, but not being strong enough, his efforts were unavailing. It was with difficulty that the young Runnels saved himself.

The *Gazette* says that a raft of lumber, taken to Rockland by steamer Lucy Snow, Capt. Rose, in nineteen hours from Bangor, is said to have been the largest raft of timber ever brought out of the Penobscot river, being nine hundred feet long, by 100 feet wide, and measuring no less than seven hundred and seventy-five tons.

As Mr. S. B. Pool was crossing the bridge at Calais, a few nights since, he was stopped by a party of fellows, one of whom demanded toll, evidently with the intent to rob him. But the gang got hold of the wrong customer. Mr. Pool had a revolver, and fired at the leader, but the shot did not take effect and he fired a second time, evidently hitting one of the villains, for they made off double quick time. This is the third time persons have been stopped on that bridge, after dark.

On Saturday June 25th, the house of Geo. Libby in West Buxton was struck by lightning and badly shattered. Mrs. Libby who was in the sitting room had a narrow escape. On the Monday previous, a cow belonging to Warren Spofford was killed.

Orin Weymouth of Clinton, shot himself fatally with a revolver July 2d, while in a fit of insanity. He died in a few minutes. He was thirty-six years old. Domestic troubles are reported to have caused his derangement.

☞ The Detroit *Tribune* says of the story, published by us last week, of the Circus Musicians being eaten by lions in Missouri, that "the lions treated the musicians with distinguished consideration, and politely escorted them to the door of the cage without taking so much as a single juicy steak from them. The musicians didn't tumble into the den of lions at all, but went on blowing their horns with melodious composure. The lions were not at all hungry, and couldn't digest the musicians if they had swallowed them. There weren't any lions attached to the circus. There wasn't any circus. The musicians tumbled into a den of liars—not lions."

THE NEW YORK AND BROOKLYN BRIDGE. The Brooklyn *Times* contains some interesting statements in regard to the bridge now in process of erection, which is to cross the East river, and connect the two cities. It is to be the most extensive work of the kind ever projected in this country, and will be one of the greatest mechanical triumphs of the age.

It is to have an elevation of 180 feet above high tide, so as to allow the passage of large vessels beneath it, with a span between the piers of 1,600 feet; which will be 250 feet more than the new suspension bridge at Niagara Falls. There will be secondary spans on each side of 940 feet to the anchor walls, at which points the height will be 85 feet above high water. The approaches will be supported upon iron gays, and truss ses resting upon small piers of masonry or iron columns. These columns, it is proposed, shall form part of the walls intended to divide the space beneath the bridge into stores, offices, &c., of which the fire and water proof floor of the bridge shall be the roof. The entire length of the bridge will be 5,682 feet, or about a mile and one ninth, and the maximum grade required is about 3 feet 6 inches per hundred. It is to be eighty-five feet in width, and have a broad elevated path for pedestrians in the middle, with a railroad track and two roads for vehicles on each side. On the railroad, two passenger trains will run back and forth alternately, drawn by endless wire ropes, worked by a stationary engine on the Brooklyn side.

The weight of the central span with all the pressure that can be placed upon it, will be four thousand seven hundred and fifty-three tons. This span will be steadied and supported by stays from the great piers or towers and by four large cables which are to bear upon the towers, and be anchored under heavy masonry; and this work, it is believed, may be done so perfectly that not even in the heaviest gale will a motion be perceptible. The towers are to be 134 feet long and 56 feet wide at the water line, and to have an elevation above high water of 268 feet.

At present all the energy of the employees is being expended on the Brooklyn caisson. This it is the intention of the engineers to sink 60 feet below the bed of the river. Twenty feet have already been excavated. The caisson is 168 feet long by 102 wide, and 15 feet high, constructed of solid timber. It is, to all intents and purposes, just a large box, turned bottom upwards and forced down by pressure from the top. Of course the moment the edges touch the bottom of the river and are pressed hard against it, the inside water may be entirely displaced by atmospheric air. Well, that is what has been done with the caisson, and as the men have got all the water out and are now digging under and around it, additional pressure is being constantly placed on the top in order to force it down. Already eleven feet of solid timber have been laid on the top, and one course of limestone blocks, and these latter are to be piled one above another until the caisson is forced down to the requisite distance, when the erection of the tower will be commenced. The cavity in which the workmen are now engaged will, when the business of excavation is finished, be filled with cement, so that the entire structure will be one solid mass. The caisson on the Brooklyn side will be finished in about three months, after which the machinery and workmen will be transferred to New York, where they will repeat the same operation, with this difference, that instead of 60 they will have 110 feet to dig. This is necessitated by the quality of the bottom on that side of the river. The entire work will, in all probability be finished sometime in 1875, at least, that is the expectation of the chief engineer; and should it prove correct, the work will not only be the greatest of the kind ever performed, but the most expeditiously completed.

GREAT FIRE IN MANCHESTER N. H. At half past two o'clock on Friday morning last, a fire broke out in Manchester, N. H. in one of the buildings in the rear of the Merchants' Exchange, which swept wildly through the wooden buildings in that section, and soon enveloped all the territory between Elm and Chestnut streets and between Hanover street on the north and the back streets on the south. The fire originated in the room

Congressional Summary.

Forty-First Congress—Second Session.

WEDNESDAY, July 6.

SENATE. Messrs. Sherman, Sumner and Davis were appointed on a Conference Committee on the part of the Senate on the funding bill.

The Senate then took up the House, harbor and river appropriation bill. Amendments were adopted appropriating $400,000 for Southern river and harbor improvements, and the bill was then passed.

Mr. Sumner called up the bill for refunding to Massachusetts the interest on advances to the United States during the war of 1812 and 1815.

Mr. Bayard said he had always believed that any claim on the part of Massachusetts for services in the war of 1812 should be presented to the British government instead of the United States. Mr. Sherman said that after 55 years a claim which was for compound interest was to be saddled upon the treasury of the United States through the force of mere persistency. Mr. Sumner said the claim was for simple interest and he was satisfied of its justice after a full examination. Mr. Saulsbury avowed his determination not to be governed by party prejudice and his readiness to vote for a measure he conceived to be just.

After remarks by Messrs. Sumner and Hamlin the bill passed and the Senate adjourned.

HOUSE. Mr. Dawes of Massachusetts reported the deficiency bill, which was made a special order for to-morrow. The bill appropriates $1,795,488, including $1000,000 for the expenses of taking the census.

The bill to pay $25.000 to the two daughters of Jethro Wood, the inventor of the cast iron ploughs, was by suspension of the rules passed, 108 to 54; two-thirds voting in affirmative.

A resolution directing that the legislative voting apparatus invention, by William Springer, to be placed in the hall of the House during the recess, at a cost not exceeding $20,000, and after discussion on the motion, by Mr. Dickey, of Pa., who declared that the machine was a humbug, the resolution was laid on the table.

Mr Dawes reported back the Senate bill to bring into effect the decree of the district court of New York, of March 1868, in the case of the English schooner Sybil and her cargo, which was seized by a cruiser of the United States, the decree to be paid with interest, which was passed; also similar bills in case of the British schooner Flying Scud and cargo, and the British brig Dashing Wave and cargo under the decrees of the court in Louisiana.

Like bills were also passed in the case of the British vessels Valante, Science, Labnar and L. S. Davis

During the pending of the bills Mr. Butler of Massachusetts expressed his unwillingness to vote for them, while within the last week six American fishing vessels had been captured by British war vessels and carried into Canadian ports.

THURSDAY, July 7.

SENATE. Mr. Trumbull in response to the various petitions for an amendment to the constitution, allowing woman to vote, reported the same back and asked to be discharged from their consideration. It was so ordered.

Mr. Morrill, of Maine, from the Conference Committee on the bill relating to the navy pension fund, submitted a report which was agreed to.

The bill fixing Tuesday after the first Monday in November, as the uniform day for the election of representatives to Congress beginning in 1872, was passed with the house representative apportionment bill attached as an amendment.

The latter, however, was amended by a provision that any State having a fraction of population exceeding one half the amount required for representation, shall be entitled to an additional representative, which will return the measure to the House for concurrence.

HOUSE. The Senate amendments to the tax bill were referred to the committee of Ways and Means.

The House then resumed the consideration of the case of Patrick Woods, for an assault on Mr. Porter.

The House finally ordered his imprisonment in the District of Columbia jail for three months.

Mr. Hooper reported a bill to promote trade with Prince Edward's Island, which was ordered to be printed and recommitted. The bill fixes the duty on importations from Prince Edward's Island as follows: On barley, oats and potatoes, 5c per bushel; on horses and mules $7 per head; on calves, sheep, goats, and swine 50c per head; on the mackeral catch of the inhabitants of Prince Edward's Island $1 per barrel, and on herring of like catch 50c per barrel; provided that light money or anchorage fees be charged in the ports and harbors of the Island on American vessels, and that no regular packet between the Island and the United States be liable to pilot fees or dues in the Island except when pilots were actually taken; and it is provided further that manufactures and products of the United States be placed on the same footing and received into the Island at the same duties as the products of Great Britain or any of her dependencies. The second section makes the act subject to alteration, amendment or repeal a any time by Congress.

FRIDAY, July 8.

SENATE. The bill relieving the disabilities of seventy-five Kentuckians was passed, the names of Basil H. Duke and Gustavus W. Smith, formerly Street Commissioner of New York, having been stricken from the list. The conference committee's report on the bill for the relief of certain officers in the army was concurred in.

The general disability bill, relieving the political disabilities of about 5000 persons, was passed, propositions to strike out the name of ex-Senator Johnson, of Arkansas, and to include that of A. O. P. Nicholson, of Tennessee, were defeated.

The bill to prohibit the enforcement of servile labor contracts was debated at length.

Mr. Sumner renewed his amendment to the naturalization bill, extending to all foreigners alike, regardless of race or color.

Messrs. Nye and Cameron, favored a postponement of the subject until the results of Chinese emigration are fully developed.

HOUSE. Mr. Sawyer of Wisconsin, reported back the Senate amendments to the river and harbor appropriation bill, and moved a concurrence.

The amendments were concurred in and the bill passed.

The House then took up the additional deficiency bill, covering items amounting to $1,783,343. The amendment of Mr. Randall, to pay certain clerks of the House an additional compensation of twenty per cent. for the 30th Congress, which had been ordered by the House not to be paid, or which they were compelled to refund, provoked a discussion in the course of which some severe personalities were indulged in between Messrs. Dawes of Massachusetts and Peters of Maine At the close of the debate explanations were made by both gentlemen and the offensive language used by them withdrawn.

Mr. Brooks of New York offered an amendment authorising the President of the Senate and the Speaker of the House to devise some system of shortening the official reports in the *Globe* and to leave out irrelevant and immaterial matter.

The House rejected both amendments. The appropriation of $170,000 for the payment of the loyal men in the South who had assisted in taking the last census, and $50,000 for the removal of the Kansas Indians, with their own consent, was agreed to and the bill passed.

A bill was passed authorising the President to accept the resignation of judges of the United States courts who have held office ten years or more and who are permanently disabled, their salary to be continued during life.

SATURDAY, July 9.

SENATE. Mr. Morrill of Maine, from the conference committee on the legislative, executive and judicial appropriation bill, made a report which was adopted. The Senate amendments for the extension of the capitol grounds and a new State Department building were stricken out. The appropriation of $100,000 for the North Pole expedition reduced to $50,000.

Mr. Morrill of Vermont, said that since the death of her husband Mrs. Lincoln had received $25,000; one year's Presidential salary, and it was now proposed to pay her $8 per day while disabled soldiers received $8 per month. He reduced the amount to $5 per day.

Mr. Howell regarded the bill as a gross and sneaking fraud upon the pension laws.

Mr. Yates charged Mrs. Lincoln of sympathy with the rebels.

A motion to lay the bill on the table, regarded as a test vote was lost, 24 to 37, and the bill was then laid over informally.

Mr. Stewart offered a resolution requiring the President to cause the act of February, 1862, to prohibit the coolie trade to be strictly enforced, and to instruct the proper civil officers to prosecute for all violations of the said act and directing an investigation as to whether the Chinese coolies are being transported to the United States in violation of the law. The resolution was subsequently adopted as modified to provide for a simple inquiry into the alleged Chinese importations in violation of the law.

The civil and miscellaneous appropriation bill was reported from the Committee on Appropriations, and the army appropriation bill was then taken up, when the amendment of the Committee on Appropriations diminishing the appropriation for the pay of the army $707,000 was withdrawn.

A new section was inserted repealing the act of January 21, 1870, and allowing retired officers on their own application to be assigned to military duty except service in the field. The pay of Chaplains was increased to $1600. The section relating to supernumerary officers was amended to provide that those remaining after the provisions of the act are carried into effect shall be furloughed without pay until assigned to fill vacancies occurring in the cavalry, artillery and infantry regiments; or on their own application they shall be discharged with one year's pay and allowances. The bill as amended was then passed.

HOUSE. The Senate amendment to the tariff and tax bill being before the House, Mr. Davis of New York, moved to suspend the rules so as to strike out all relating to the income tax. Negatived. The Senate amendment on the income tax, making the rate 2 1-2 per cent., was agreed to, and the amendment to continue it two years was rejected.

The House has reconsidered its action rejecting the first amendment of the Senate on the tariff and tax bill, striking out all special taxes, &c., and concurred in the same.

Mr. Dawes, from the conference committee on the legislative, executive and judicial appropriation bill, made a report and explained it. The House conferees had offered to raise the salaries of the Supreme Court Judges to $10,000 each, but this was declined by the Senate conferees unless all the Judges' salaries were increased; therefore none were increased. After discussion on that portion of the report which excludes men living in the Southern States from the right to sue in the Court of Claims to recover claims against the government, the conference report was agreed to, 89 to 40.

MONDAY, July 11.

SENATE. The sundry civil appropriation bill was taken up and the amendments from the Committee on Appropriations were adopted, including one increasing the appropriation for the Court House building at Portland Maine, to $20,000.

The tax bill was received from the House and Messrs Sherman, Morrill, of Vermont, and Hamilton of Maryland were appointed on a Committee of Conference.

Messrs. Morrill of Maine, Drake and Stockton were appointed a Committee of Conference on the naval appropriation bill.

HOUSE. The bill from Mr. Munger of Ohio, providing for a joint committee to enquire into and report the means neccessary to avert the danger threatening the country from Chinese immigration, either by specific legislation by permitting each State to prohibit the residence of Chinese within its limits or their total exclusion from the States and territories except as travellers and merchants, was referred.

A resolution was presented declaring that the 14th and 15th amendments to the constitution having been duly ratified by the legislatures of three-fourths of the several States are valid to all intents and purposes, as a part of the constitution, and such are binding and obligatory on the executive, Congress and the judiciary of the several States and territories and all citizens of the United States, and the resolution went over.

Mr. Dawes of Massachusetts, from committee on appropriations, reported back the Senate joint resolution appropriating $50,000 to pay the expenses of the Indian delegation to Washington.

Mr. Fitch of Nevada, opposed the appropriation of money from the public treasury for the purpose of supplying champagne, cocktails, boxes at the opera, strawberries and cream, and all the luxuries of the season, to a lot of squalid and murderous savages. He would rather have that money expended in furnishing rifles and ammunition to the people of Arizona who were being scalped at their own doors, even in a capital of a territory. The resolution passed.

TUESDAY, July 12.

SENATE. The civil expenses appropriation bill was taken up. An amendment was adopted providing for compensation of United States officials who have not taken the test oath for services in 1865 and '66. Other amendments were adopted, including those appropriating $10,800 to pay the surfmen to be employed at alternate sections on the Jersey coast, for the purpose of saving life and property from wreck, and $15,000 to humane societies of Mass, for protecting human life from ship wreck, by life boats and other means. The bill was then passed.

HOUSE. Mr. Schenck of Ohio reported and explained the funding bill, from the Conference Committee. In the conference committee the Senate agreed to adopt the House bill as a basis of the report now presented. The report proposed the issue of $250,000,000 bonds bearing five per cent interest and payable after ten years; $300,000,000 bearing four and a half per cent. and payable after fifteen years, and 100,000,000 bearing four per cent. and payable after thirty years.

After debate the report was rejected, 90 to 101, and another committee of conference appointed.

Foreign News.

LATEST FROM EUROPE.

Dispatches via. Atlantic Telegraph.

FRANCE.

PARIS, July 6. The proposition to invite Hohenzollern to the throne of Spain does not meet with the approval of all the members of the Spanish Cabinet.

The Deputies of the Left Centre, in the Corps Legislatif, will meet to-day to determine on the line of policy with regard to the affairs in Spain.

PARIS, July 7. The *Constitutionel* (semi-official newspaper) of this city says that the Government would consider the Spanish enthronement of the Prince Hohenzollern as a check and menace to France, and under those circumstances the Government has decided to energetically oppose the project.

Late yesterday afternoon, after his interview with the Emperor, Ollivier saw the Duke of Grammont, Minister of Foreign Affairs, and the Ambassador from Spain. The result of these meetings was a firm and energetic note to Baron Werthen, who, immediately on its receipt, departed for Ems to meet the King of Prussia. There is considerable excitement in commercial circles here.

PARIS, July 6. In the Corps Legislatif to-day, Duke de Grammont said that it was true that Gne. Prim had offered the throne of Spain to Prince Hohenzollern, who accepted it, but the people of Spain had not pronounced on the transaction, and France had yet to know the details of the affair, which had been conducted in secresy. The French Government would persist in its policy of neutrality, but under no pretext would it permit the German Power to place one of its Princes on the throne of Charles 5th. He hoped that prudence in Germany and wisdom in Spain would avert the extremities.

PARIS, July. 7 5 P. M. There is great agitation and activity in the Foreign Office. It is said that scores of telegrams passed betweeu Prim and Bismarck before the intrigue was discovered by the French Minister at Berlin. It is not believed that France would agree to a conference of the Great Powers on the question, as she desires to settle it directly with Prussia and Spain. Austria so far maintains strict neutrality. The French fleet will immediately sail via Brest for the Mediterranean. The rumor that Gen. Prim had abandoned the candidature of the Prince of Hohenzollern, in view of the threatening opposition of France, is not confirmed. Gen. Prim wishes to have the decision of the Cortes on the question, and insists on the project, as not hostile to France.

PARIS, July 7—6 P. M. A note has been received here from Prussia, the substance of which is as follows: Prince Hohenzollern is not a member of the royal family; Prussia did nothing to procure the offer of the Spanish Crown to him; the consent of the King of Prussia to its acceptance will be given definitely only after a vote of the Cortes, and if the latter should elect Hohenzollern, Prussia will support him.

PARIS, July 7. The Minister of Foreign Affairs has received full confirmation of the massacre of the French in Pekin, which will be immediately sent to the commander of the French fleet in the Chinese waters. No special expedition will be dispatched, as the naval force is deemed sufficient to vindicate the dignity of France.

PARIS, July 8. The Spanish question still causes much uneasiness in Paris. The feeling Friday morning was more assuring than the previous evening. The *Constitutionel*, an imperial organ, announces that Senor Olozaga, the Spanish minister, has received instructions from Spain to give official notice to the French government of the candidature of Prince Leopold of Hohenzollern.

The *Constitutionel* adds that when France becomes convinced of the persistence of Spain in this matter, she will terminate diplomatic relations with her. No definite intelligence has been received from Prussia, but France will not be content with the evasive declarations of Bismark. Prussia, ought, in the interest of the peace of Europe, to withhold her consent for Hohenzollern, to sit upon the throne of Spain.

PARIS, July 9. Circulars have been issued, recalling to their commands all officers and soldiers who are absent on furlough. Large quantities of powder and war stores of all kinds are being conveyed to the strong-holds on the eastern frontier. The government authorities have in their possession plans of all the fortresses, roads, canals and other public works in Prussia. The government has taken measures to put the *Garde Nationale* and the *Garde Mobile* on a war footing. Agents of the government are in Hungary purchasing horses and hay for cavalry service.

There seems to be no doubt that the government has received the long expected answer from the Prussian government on the Spanish throne difficulty. It is estimated in well-informed circles that Prussia makes the following points: First, disclaiming all participation in the candidature of the Prince of Hohenzollern; second, that the Prince of Hohenzollern is not a relation of the royal family of Prussia; and third, that Gen. Prim negotiated with the Prince and he must be responsible, not Prussia. The answer is not satisfactory to France and the Duke de Grammont has forwarded another despatch to Berlin.

Two divisions of the army of Paris have been ordered to Chalons.

The *Moniteur* (ministerial journal) this evening says: The abandonment of the Hohenzollern project on the part of Prussia is not enough now. France must prevent the recommencement of similar projects and on the part of Prussia demand the entire fulfilment of the treaty of Prague; namely, the liberty of South Germany, the evacuation of the fortress of Mayence, the renunciation of military influence beyond the Maine and a settlement of the Schleswig-Hostein question with Denmark.

PARIS, July 10. While the negotiations are going on with great activity the French government makes no attempt to conceal its warlike preparations. The Emperor remains at St. Cloud and it is announced that he will not go to Mineral Springs. Couriers arrive all day and far into the night at the palace. The Emperor opens all despatches himself and directs or dictates the answers. The departure of the Prince Imperial for Chalons has been deferred. Marshal MacMahon has been ordered to be ready to move at the first signal, and orders have been sent to the commandant at Cherbourg to prepare transports for 30,000 troops.—Large numbers of army and naval officers in Paris on leave disappeared and doubtless have been quietly ordered to their posts. Editor of the *Literary Journal*, Garroche, has been sentenced to four months imprisonment and 5000 francs fine for violation of the press law and offences against the Emperor.

PARIS, July 11. In the Corps Legislatif to-day Duke de Grammont declared that the Government understood the impatience of the Chambers and the nation, but could not yet make known the result of the negotiations. It awaited an answer, upon which its movements depended. All the foreign governments to which it had addressed itself appreciated the legitimate complaint of France. He hoped that all would soon be known to the Chambers, but to-day he must appeal to the patriotism and sense of honor of each member. Mr. Arago replied that he desired as much as any one to hear pacific declarations. He must assume that the Minister of Foreign Affairs whether among the questions awaiting solution there were not some which had nothing to do with the case of the Prince of Hohenzollern, and if so he must conclude that the government sought a pretext for war. The clamors of the majority prevented M. De Grammont from making a reply.

It is not known that any answer has been received from Prussia. The delay depresses the Bourse and rentes declined to 68f. 45c.

The members of the Cabinet at St. Cloud have been all day in close consultation with the Emperor.

PARIS July 12. It is just reported that the questions at issue between France and Prussia have been amicably adjusted. The Bourse is active; rentes 70f.

The news that the difficulty with Prussia will probably be arranged is founded on the announcement that Prince Charles of Hohenzollern, the father of Leopold, through Senor Olozaga, has telegraphed to Gen Prim that he should refuse the crown for his son, even if endorsed by the Spanish people.

SPAIN.

MADRID, July 6. At a meeting of the Ministerial Council, Sunday, it was shown that Gen. Prim had not been guilty of personal intrigue in the Hohenzollern affair, but that he acted all the time in concert with Serano, and that he had no intention of proclaiming a king without the consent of the Cortes.

A rumor prevails that Spain concluded yesterday a new treaty of alliance with Prussia. The French Senate propose to increase the military contingent from 90,000 to 100,000.

MADRID, July 7. The *Tempo* and *Epoca*, which support Alfonso, and other journals join in the outcry against the Prussian alliance. The partizans of Prim will press it, as a last resort for Spain.

MADRID, July 9. The *Epoca* to-day says the dignity of Spain is yet safe. The Cabinet alone is compromised. There is time yet for the ministers to listen to the voice of Europe and stop on their perilous course.

MADRID, July 10. It is reported that the Unionists in the Cortes will vote against the Prince of Hohenzollern unless the question becomes an international one.

The *Imperial* publishes an account of an interview between Minister Sagosta and Baron Mercier, the French Ambassador. Senior Sagosta complained that France opposed all nominations except that of the Prince of Asturias. He denied that Spain was under the influence of Russia, and regretted the susceptibility of the French Government.

PRUSSIA.

BERLIN, July 7. All the semi-official journals here are silent on the Spanish imbroglio, with the exception of the *North German Gazette*, which professes to have learned for the first time, from the declaration of the Duke de Grammont, that any Prince of the house of Hohenzollern had accepted an offer of the Spanish Crown, and fails to understand the talk about war indulged in by M Olliver yesterday in the French Chamber.

Count Benedetti, the French Ambassador, before his interview with King William saw Baron Von Werther, the Prussian Ambassador at Paris, who had come to Ems to consult with the King. The Baron told the French Minister that the government of Prussia was profoundly surprised at the attitude of France. It could not comprehend this haste to assume hostility except as a verification of the belief that France had for a long time desired war on the Rhine.

BERLIN, July 9. The report that Baron Werther, the Prussian Ambassador at Paris has been recalled is not true. In official circles here the situation is thought to be free from danger. Bismark has neither assisted nor advised Spain in the Hohenzollern matter and Napoleon's attempt to hold him to any responsibility is therefore regarded as a mere pretext.

BERLIN, July 10. Military men here do not appear excited about the Spanish embroglio. It is not thought possible that the war will result from it. The Prussian *Cross Gazette*, a ministerial organ, disapproves of the Duke de Grammont's declarations in the French chamber, and says he must know as every one does that the King of Prussia and the heads of the confederations are all indifferent to the elevation of Prince Leopold to the Spanish throne.

BERLIN, July 11. The North German *Gazette* says that the words used by the Duke de Grammont in the Corps Legislatif last week were a provocation rather than the prudent language of a statesman. If this was the object of the minister he had better take care.

ENGLAND.

LONDON, July 7. The *Morning Post* to-day says the great powers will be disposed to sanction any energetic action on the part of France for the punishment of Chinese, and it is thought that the *Post* is semi-officially author zed to speak for the government.

LONDON, July 8. The excitement here has been intense over the condition of affairs on the continent, but there is a re-action to-day in consequence of a conviction that war will be avoided.

In the House of Lords this afternoon Earl Granville said that France having announced her determination to resist the election of Prince Leopold, Her Majesty's Government, in connection with other powers, was using every means to prevent peace and restore an amicable understanding. Similar statements were made on the part of the Government in the House of Commons. Mr. Otway, Under Foreign Secretary, said that England had not expressed herself favorably on the selection of the Prince of Hohenzollern for the Spanish throne, and Mr. Gladstone added that his nomination had taken the Government by surprise. France had threatened to proceed to extremities, and should she persist in executing her threats Her Majesty's Government would exhaust every means to prevent war upon a case so little warranting it.

MASSACRE OF THE FRENCH IN CHINA. A dispatch dated London, 6th inst. states that advices from Pekin give the particulars of a fearful butchery of French residents in that city by a mob of Chinese, upon the 21st of June. An organized mob, imbued with intolsrant hatred of foreigners, and especially the French residents, in a great mass appeared in the quarters populated by the latter, and immediately commenced beating and maltreating all Frenchmen whom they encountered. They, however met with some resistance. The residence of the French Consul was broken into by the party, and himself and the Secretary of the French Legation brutally massacred. Some of the attaches were wounded. The rabble also killed several Sisters of Mercy and a number of priests, all foreigners, mainly French. They also beat to death several Russians. All the French people who were overtaken were killed or shockingly maimed. In fact, inflamed with fury, the Chinese procured all manner of weapons, and with these began the dreadful massacre of the French. They entered many dwellings, sacked them, attacked the inmates and dragged them forth into the streets, where they were beaten with staves and bludgeons and stabbed with knives. Many were killed or will die from the injuries inflicted. Some of the Chinese used firearms. Not content with their fiendish work, they repaired to the Roman Catholic cathedral, drove forth the worshippers, and took possession, and after sacking the building set fire to it, and it was totally destroyed.

Special Notices.

HEALTH'S BEST DEFENCE.

"The weak catch herbs," says St. Paul, so that eighteen hundred years ago the value of medicinal was appreciated. In the Old Testament botanical remedies are repeatedly recommended, but in no passage of sacred history is man recommended to swallow calomel, or blue pill, or any other mineral preparation. The sick were directed to eat herbs to strengthen them, to purify them, to heal them, to restore them. In that day the art of making vegetable extracts was unknown. The herbal medicines were mere infusions.

It was reserved for a later age to unite the sanitary essences of tonic, aperient and antibilious roots, barks, and plants, with an active stimulant, and thus secure their rapid diffusion through the debilitated or disordered system. The crowning triumph of this effective mode of concentrating and applying the virtues of medicinal vegetables was achieved in the production of Hostetter's Stomach Bitters. Never before had a perfectly pure alcoholic stimulant been combined with the expressed juices of the best specifics of the vegetable kingdom. Never yet, though eighteen years have elapsed since its introduction, has this great restorative been equalled. It is taken at all seasons, in all climates, as the most potent safe-guard against epidemics, as a protection against all unhealthy exhalations that produce debility or beget disease; as a remedy for intermittent and other malarious fevers; as an appetizer, as sovereign cure for dyspepsia; as a general tonic and invigorant; as a gentle, painless aperient; as a blood depurent; as a nervine; as a cure for bilious affections; as a harmless anodyne; and as the BEST REMEDY OR HEALTH under unfavorable circumstances, such expedientary pursuits, undue bodily or mental exertion, hardship, privation and exposure. 4w30

WHAT DID IT!

Lyon's Kathairon made my hair soft, luxuriant and thick, and Hagan's Magnolia Balm changed that sallow expression into the marble beauty you now see. This is emphatically the language of all who use these articles. A fine head of hair and a refined complexion are the greatest attractions a woman can possess. The Kathairon and Magnolia Balm are just what will give them to you and nothing else will. The Balm is the bloom of youth. It makes a lady of thirty appear but twenty. Both articles are entirely harmless, and very pleasant. They should be in every lady's possession. 4w30

For Moth Patches, Freckles & Tan,

USE "PERRY'S MOTH & FRECKLE LOTION."

The only Reliable and Harmless Remedy known to Science for removing brown discoloration from the Face. Prepared only by Dr. C. O. PERRY, 49 Bond St., N. Y. Sold by Druggists everywhere. 4m16

PIMPLES ON THE FACE.

FOR Comedones, Black-Heads, Flesh Worms or Grubs, Pimply Eruptions and Blotched disfigurations on the Face, use Perry's Comedone & Pimple Remedy. Reliable, Harmless, and contains no *Lead Poison*. Depot, 49 Bond St., N. Y. Sold by Druggists everywhere. 4m16

Cautions. Purchasers of the Peruvian Syrup (a protected solution of the protoxide of Iron) are cautioned against being deceived by any of the preparations of Peruvian Bark, or Iron, which may be offered them. Every bottle of Genuine has PERUVIAN SYRUP (not Peruvian Bark) blown in the glass. EXAMINE THE BOTTLE AROUND FRACTURE. 1w32

DUTCHER'S

LIGHTNING FLY KILLER.—The Original Genuine Article. Imitations are about. Don't be fooled. Ask for Dutcher's. 1w30

☞ The trial of one bottle of Hall's Vegetable Sicilian Hair Renewer will show most beneficial effect upon the hair 1m30

Married.

In this city, 11th inst., by Rev. Rufus Chase, Oliver Wendel of Dover, N. H., to Miss Sarah Butler of this city.

In this city, 9th inst., by Samuel Titcomb, Esq., Manley Knowles of Bolgrade to Miss Isabell Dunn of this city.

In Waterville, 3d inst., Manuel G. Sawtelle to Miss Flora A. Soule.

In Grace Church, Chicago, 6th inst., by the Rev. Edward Sullivan, Reuel W. Bridge, Esq., (formerly of this city) to Miss S. L. Allison of Chicago

In Brunswick, 3d inst., Mr. Lewellyn Cobb, to Miss Angie A. Dwelley, both of B.

In Brunswick, 3d inst., Moses A. Rider of Pownal, to Miss Mary A. Coombs of Harpswell.

Died.

In this city, June 28th James Tibbetts, aged 79 years and 2 months

In Hallowell, 7th inst., very suddenly, Mrs Emeline P. Pray, daughter of Capt. Samuel Smith, aged 57 years.

In Vassalboro', June 30th William Backer, formerly of North Berwick, aged 81 years.

In Vassalboro', 3d inst., Frank Smiley, aged 21 years.

In Clinton, July 2d, by suicide, Orin Weymouth, aged 36 years

In Parkman, June 4th Hannah Clark, aged 94 years and 8 m.

In Brunswick, 4th inst., George Woodside, aged 75 years

In New Sharon, 4th inst., Rosetta E., daughter of Christopher and Lovina Goodridge, aged 23 years.

PORTLAND & KENNEBEC R. R.

SUMMER ARRANGEMENT, 1870.

Passenger train leaves Augusta daily for Portland and Boston at 5.45, 11 A. M., and 3.15 P M, and will be due in Boston at 1.45, 8 and 10 P. M. Returning—leave Boston at 7.30 A. M., and 12 M., and Portland 7.10 A. M., 12.45 and 5.15 P. M., and will be due in Augusta at 10 A. M., 3.30 and 8 P. M.

Augusta for Vassalboro', Waterville, Kendall's Mills, Skowhegan, Dexter, Bangor, &c., at 3.40 P. M. Returning—will be due in Augusta at 10.50 A. M.

Augusta for Hallowell and Gardiner, (dummy car) at 7.30, 11.30 A. M., 2.15, and 6.00 P. M. Returning—will be due in Augusta at 7.00, 8.45 A. M., 1.30, 5.30 P. M.

Through Freight Trains leave Boston daily, at 4.00 P. M., arriving in Augusta the following morning at 8.45.

A Refrigerator car is run on the through freight trains (both going and returning) carrying fruit, meat, eggs, vegetables, &c., in good order in the warmest weather.

L. L. LINCOLN, Superintendent.

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LOCATED AT STEVENS PLAINS, Westbrook, Me.

THE FALL TERM of this Institution will begin MONDAY, Aug 22d, and continue fourteen weeks, under the immediate charge of

Rev. J. C. SNOW, A. M., Principal,

who has associated with him a corps of able and experienced Teachers.

New buildings, supplied throughout with steam heating apparatus, have been erected during the year, and other improvements made, so that the accommodations for students are not only extensive but first class in every respect.

In addition to the usual Seminary courses of study, there has been provided a COLLEGIATE COURSE FOR YOUNG LADIES, and those who complete it, the Institution is authorised to confer degrees. Since the organization of this department in 1863, about sixty young ladies have graduated in the full course.

A course of twelve lectures on Physiology and the Laws of Health, will be given during the Fall term, by Dr. Foster of Portland; C. B. Stetson, E-q., of Lewiston, will give a course on Methods of Study and Teaching; Prof. Marshall of Tufts College, and others, have been engaged to lecture on miscellaneous subjects These lectures will be open, without extra charge, to all students.

BOARD, including fuel and lights, $3.50 per week—washing, 60 cents per dozen.

TUITION—from $5.50 to $8.50 per term.

Students may lessen the expense by self-boarding. Applications for rooms should be made at once.

For further particulars address the Principal. Post Office, Stevens Plains. 8w32

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TWO GOOD COAT MAKERS, VEST AND PANT MAKERS,

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Largest and Best assorted Stocks of

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Splendid assortment of Dress Goods, Woolens, Cotton Goods, Shawls, Sun Umbrellas, Parasols, Fans, &c, &c.

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Of Sheeting, Prints, and remnants of Boys wear &c., &c., all of which were bought for Cash, and will be sold at the

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SKOWHEGAN, Friday, July 22.
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GARDINER, Tuesday, July 26.
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Bath Tubs, Copper Boilers, Water Closets, Wash Bowls, Brass and Plated Cocks, Cast Iron Pipe, Lead Pipe, Sheet Lead, Hartbern Drain Pipe, Cast Iron Sinks, Pumps,

And all articles pertaining to Plumbing, constantly on hand and for sale at the lowest market rates.

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Where may be found also repairs for the **Monitor Mower**, and at my place.

M. E. RICE, Agent.

Stetson, July 8, 1870. 3w32

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For Catarrh, Weakness of the Kidneys and Lungs, and all diseases of Mucous Membrance. Results of thirty years' experience of an old physician. Only six months before the public, and yet its cures are numerous and wonderful, causing it sale where known, beyond any other new medicine ever before the public. Send for Circular giving testimonials, backed by well know men. Price one dollar a bottle. Sold by the leading druggists.

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To sell a *thoroughly good domestic article*, wanted in every family. No competition. Exclusive territory given. Business very pleasant. Agents have sold 3 doors, netting $50 profit per day. One sold 300 in a small town, another 1000 in five towns, another 31 in calling on 33 families. Cost of outfit $3. No danger of imposition. Best of references given. Send for circular to 102 Washington St., Boston, Mass

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Sheep, Poultry, Pigeons, Rabbits, &c., bred and shipped by J. W. & M. IRWIN, Pennington ville, Chester Co., Pa. Send for Illustrated Circular. 4t32

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I have this day relinquished to my son Ambrose P. Gammage, the remainder of his time until he becomes twenty-one years of age, and shall claim none of his earnings, nor pay any debts of his contracting. ASAT. GAMAGE.

Bristol, June 20, 1870. 3w30

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240 MEN AND HORSES!

Now on its 22nd annual tour; after an absence of four years will revisit and exhibit in this place as above stated.

Among its manifold attractions is a monster

RHINOCEROS.

"He fearless, walks the plains, or seeks the hills;
Where, as he crops his wonted fare, the herbs
In widening circle round, forget their food,
And at the awful monster wondering gaze."

African hunters assert they had rather face

FIFTY LIVING LIONS!

Than this enraged monster.

Herds of Dromedaries!

And a

Man-eating Tigress.

The proprietor is pleased to announce that he can present to his patrons the rarest, the most amusing and instructive sight ever beheld in a menagerie.

FOUR LITTLE BABY LIONS!

OUR PETS.

They were born last month, are as playful and harmless as kittens, and at the afternoon exhibitions will be taken from the lioness's cage and carried among the audience, and the ladies and children will be permitted to handle them. More than

30,000 CHILDREN

have visited these nursing lions during the past three weeks. Included in the collection of wild animals are the following:—

A Polar Bear, direct from the North Ocean; **A Brown Guanaco**—new variety of Llama; **The Sacred Cattle, Bengal Tigers, Black Monkey, Black Bears, White Bears, Laughing Hyenas, Brazilian Jaguars, Senegal Leopards, South American Guanacos, Gazelles, Panthers, Emues, Camels, Grizzly Bears, Zebu or Sacred Ox, Buffaloes, Black Wolves, Black Bears, Alpine Goat, Llamas, Dromedaries, Bisons, Axis, Deer, Muskin Swine, Striped Hyenas, Tapirs, Quagga, Zebras, Eagles, Peccaries, Vultures, Monkeys, Apes, Baboons, etc.,** and beautiful birds from all parts of the world.

There will also be introduced

TWO PERFORMING ELEPHANTS,

"——wisest of brutes!"
Oh, truly wise; with gentle might endowed;
Tho' powerful, not destructive.

Our aim being to "please the people" and suit **ALL TASTES**, we have engaged

Sig. SEBASTIAN'S ELEGANT Italian Circus,

which has long been accounted the

MOST FAULTLESS CIRCUS TROUPE IN EUROPE,

accompanied by many of the best artists obtainable in this country. We do not travel by railroad, as many small concerns are obliged to, but with a working force of 240 Men and Horses we move over the country as an "army with banners"—with golden chariots, with elephants from distant India, with droves of camels from Egypt's ancient plains, and a long line of massive animal cages filled with denizens from the forests of Ceylon, the dreary wastes of Nova Zembla, and from the banks of the sacred Ganges, and the classical Nile, truly presenting a ROYAL RETINUE of Oriental Splendor and Magnificence, as they pass over the land.

"MENAGERIE LEVEES"

are held one hour before the Circus commences, and amp'e time is allowed all leisurely to inspect the Wild Animals and Beautiful Birds before the Circus entertainment commences. Wither's Regimental Band will be present to enliven the occasion

THE MAINE FARMER: AN AGRICULTURAL AND FAMILY NEWSPAPER.

Poetry.

OLD AGE.

Fling down the faded blossoms of the Spring,
For crisp the roses with regretful hand;
The joy of Summer is a vanished thing;
Let it depart, and learn to understand
The gladness of great calm—the Autumn rest,
The peace—of human joys the latest and the best.

Ah! I remember how in early days
The primroses and the wild-flower grew beside
My tangled forest paths, whose devious ways
Filled me with joys of mysteries untried,
And terror that was more than half delight,
And sense of building life, and longing indistinct.

And I remember how, in Life's hot noon,
Around my path the lavish roses shed
Color and fragrance, and the air of June
Breathed rapture—now these summer days are fled,
Days of sweet peril, when the serpent lay
Lurking at every turn of life's enchanted way.

The light of Spring, the Summer glow, are o'er,
And I rejoice in knowing that for me
The roughbine and the rose bloom no more,
The tender green is gone from field and tree;
Brown barren sprays stand clear against the blue,
And leaves fall fast, and let the truthful sunlight through.

For me the hooded herbs of Autumn grow,
Square-stemmed and ober-tinted; mint and sage,
Horehound and balm—such plants as healers know;
And the decline of life's long pilgrimage
Is soft and sweet with mojoram and thyme,
Bright with pure evening dew, nor serpent's glittering slime.

And round my path the aromatic air
Breathes health and perfume, and the turfy ground
Is soft for weary feet, and smooth and fair
With little thornless blooms that abound
In safe dry places, where the mountain side
Lies to the setting sun, and no ill beast can hide.

What is there to regret? Why should I mourn
To leave the forest and the match behind,
Or toward the rank, low pasture-lands sadly turn,
Since here are another loveliness I find,
Safer and not less beautiful—and blest
With glimpses, faint and fair, of the long-wished-for rest?

* * *

And so I drop the roses from my hand,
And let the thorn-pricks heal, and take my way
Down hill, across a fair and peaceful land
Lapt in the golden calm of dying day;
Glad that the night is near, and glad to know
That, rough or smooth the way, I have not far to go.

Our Story-Teller.

THE CRY IN THE DARK.

It was on Windermere, one sunny evening last autumn but one, that the following adventure was told me by a kindly middle aged gentleman, whose pleasant acquaintance I had made at the hotel where I was staying. We had come out with the intention of fishing, and were anchored about twenty yards from shore on the further side of the lake; but finding the perch in no humor to bite while the sun was so high, we sat chatting and smoking, and watching the purple shadows steal slowly up the sides of the great hills that guard the head of the lake, biding our time patiently till the fish should be hungry enough to be tempted by our bait. I had been taking a walking tour through Lakeland, and my companion had made the ascent of Fairfield on the previous day; so that our conversation, working gradually round from divergent points, at length fell on pedestrianism, and the amount of health and pleasure to be derived from travelling through a country on foot; and it was upon this hint that my companion spoke as follows:

When I was a young fellow (said he,) that is to say, more than thirty summers ago, I was as fond of walking tours as any body. The first I ever took was through Cornwall, when I was but a lad of seventeen; on which occasion I met with a little adventure which for your good pleasure, I will relate to you as soon as I have lighted another cigar.

With a six weeks holiday in view before returning to the drudgery of my father's office, and with a purse not badly supplied, I set out on my tour, determined to enjoy myself after my own free and independent fashion; and to thoroughly explore the romantic country I had chosen as the scene of my wanderings, which was at that time little better than a *terra incognita* to the ordinary run of tourists, who firmly believed they had seen everything that was worth seeing after staying for a few hours in each of the principal towns, and viewing the intermediate country from the top of a coach, or the windows of a post-chaise. For my part, I disdained all guide books and road maps; and never knew, when I set out in a morning, what spot would be my resting place at night. I delighted in cross roads and country lanes, and sheep tracks among the hills; any footpath or byway that led from the dusty prosaic high road had allurements for me that I could rarely resist. I had been leading this pleasant sort of life for about a fortnight, gradually working my way southwestward toward the sea, when late one afternoon, a gloomy overcast afternoon, as I well remember—I overtook a peddler among the hills, a German Jew fellow, with a box hanging from a strap over his shoulder; and as the road was very lonely, and we both happened to be going the same way, we naturally fell into conversation; for in those days I was always ready to make the acquaintance of anybody. The road we were travelling was little more than a bridle path among the hills which I had taken by chance, neither knowing nor caring whither it might lead me; and it was to such effect that I answered my companion, when he asked me for what place I was bound. He greeted my answer with a smile, and a little shrug of the shoulders, which might either be one of pity at the idea of any rational being finding pleasure or profit in such aimless wanderings, or one of disbelief at what he perhaps considered a too transparent attempt to impose upon his credulity. After trudging along in silence for a short time, he remarked that he was bound for a certain town which he named, some dozen miles away: that he had taken the road through the hills, hoping to find it a near cut; that he had never been that way before; and that he had heard there was a roadside inn some mile or two further on, where we could probably obtain accommodation for the night, as it would be dark in less than an hour, and to attempt to find one's way across the moors after dark would be the height of folly. He concluded by asking me whether I did not want a splendid gold watch and chain, or a ring, or a breastpin, or a set of studs—any or all of which he would let me have at a ridiculously low figure.

Finding all his attempts to trade of no avail, he shrugged his shoulders again, pulled up his box a little higher on his back and, becoming *bon camarade* on the instant, offered me his box full of choice foreign tobacco; and suggested a friendly pipe as the best alleviation of the toils of the way; a proposition to which I readily agreed, for, young as I was, I had learnt the art of smoking. And so, walking, smoking, and chatting pleasantly together, an hour or more sped quickly away; and I hardly knew how nearly dark it was till my companion pointed to a faint light shining in the distance, and declared that it must proceed from the inn of which we were in quest. I have said nothing hitherto as to the personal appearance of my peddler friend. In person he was thin and wiry, with keen mobile features, sharpened and intensified by the close bargaining of many years. In age he might be fifty, or rather more; and his hair and beard, both of them long and tangled, and once black, were now fast becoming gray. He wore small gold circlets through his ears. He spoke good English, but with a slight foreign accent; and, finally, I gathered from his brass-lettered box that his name was Max Jacoby.

Toiling slowly upward, we at length reached the summit of the hill, and found ourselves close to the inn of which we were in search. The light we had seen so far away proceeded from a lantern suspended from the roof of a rude shed close to the inn, where a tall, brawny young savage, of most forbidding aspect, was effecting some rude repairs to a rickety tumble-down cart. There was a light, too, in at least one room of the inn, as we saw through a chink in the wooden shutter with which the window was jealously guarded; otherwise the place seemed dark, silent, and tenantless. On inquiring of the young savage whether we could be accommodated for the night, he replied that he did not know, but that we had better knock at the door and ask the master. Not being in the habit of knocking at the doors of country inns, I lifted the latch, intending to walk in without ceremony; but finding the door would not yield to my efforts, I was obliged after all, to accept the suggestion offered me, and knock. A delay of half a minute or so, and then the door opened as far as the chain within would allow, and the landlord stood before us and inquired what we wanted. Could he accommodate us for the night? we asked. He rubbed his hand slowly over his chin, mused a moment, and then replied that he thought he could perhaps do so, unfastening the chain at the same time to admit us.

We found ourselves in a room of considerable size, poorly furnished with a few chair, and two tables of the commonest kind, but looking cheerful just then in the light of the large fire burning in a grate at one end of the room. Jacoby drew a chair up to the fire with an air of enjoyment, and relieved himself of his box, placing it close by his side where he could keep a half eye constantly upon it, requesting me at the same time to order what I pleased for supper. The landlord had disappeared into an inner room or kitchen, from which there now issued, in answer to my summons, a tall, big boned mulatto woman, attired in a check cotton gown, and having a red 'kerchief bound round her head. This apparition was so unexpected, and seemed to me so ludicrous and out of place in a lonely Cornish inn, that I could not help bursting into an irrepressible fit of laughter as the woman stepped forward into the room; but the dark scowl that chased away the good natured grin with which she had just greeted me, warned me not to carry my amusement too far. On strict enquiry, the capabilities of the house resolved themselves into an unlimited supply of eggs and bacon; so we were fain to give our orders accordingly. After the remnants of the meal had been cleared away, the landlord himself entered the room to ask what we would like to drink.

Certainly a very low, smooth, insinuating voice, very different from that of a rude country landlord. He was a large built, fleshy man, with a red, fresh-colored, white eyelashed face, which gave you at the first glance the idea of good nature, combined with an equal amount of stolid indolence; but when those heavy overhanging lids were fairly raised, and you caught a full glance from the grey restless eyes beneath them—restless and treacherous as those of a tiger—then you felt that there was something more than somnolent good nature about this man,—that there was an iron will to do and to dare beneath that impassive exterior.

Jacoby chose some whiskey on the landlord's recommendation, and I ordered a tumbler of the same, more for "the good of the house," as the saying is, than because I cared to drink it. On Jacoby's invitation the landlord came and joined us; for the peddler was fond of society, and probably thought he saw some chance of driving a bargain; at at all events after imbibing a glass or two of whisky, he grew more talkative than ever, and at last lifted his box to his knees, opened it, and spread out on the table a quantity of cheap jewelry, which looked very bright and glittering by candlelight, but was in reality, of very small intrinsic value and endeavored, by a voluble and energetic harangue to tempt the landlord into becoming a purchaser. That calm and sententious individual examined the baubles one by one, replaced them carefully on the table, and ended by expressing his opinion of them by a little silent laugh, and two or three extra puffs from his pipe; thereby intimating, as plainly as though he had said so in as many words, "Rubbish, every bit of it; don't attempt to deceive me!"

Jacoby, with a shrug, put away his wares, closed his box, and resumed his pipe. A grateful space of silence intervened. The pedler was drinking heavily, and the landlord took care to keep his glass constantly replenished. Before long the effects of the fiery liquor began to make themselves visible in his flushed face, and thick unsteady tones; that mixture of shrewdness and caution which, so far as I could judge, characterized his dealings with every one, seemed suddenly to desert him; he became at once noisy, boastful and confiding.

"I've something here, now, that it will do your eyes good to look at," he exclaimed, drawing a small leather bag from some hiding pocket. "Gems of the first water. See here and here! What do you say to these?" and he poured into his hand a number of small brilliants, all of them unset, which even, in that wretched light, shone and scintilated like star dust, or chippings from the great belt of Orion. "Oh, my darlings, how I love you!" said Jacoby fondly. "You're easier to carry than silver and gold, and far prettier to look at. A ragged coat is not always the sign of a poor man, master landlord."

He shook his head with drunken gravity; gave another fond look at his treasures; then depositing them in the bag; and by a slight-of-hand movement disposed of the bag and its contents about his person. The landlard's heavy eyelids were lifted with surprise as the pedler held out the brilliants in his palm; and he greeted them with a long stealthy glance from the corner of his greedy, treacherous eye, then let his eyelids fall again, and went on again with his smoking as though there were no such things as diamonds in the world.

"You do not drink, young gentleman," said the landlord to me after a while. "I am afraid the whiskey is not to your taste."

"The whiskey is very excellent, I have no doubt," I replied; "but I rarely drink spirits of any kind, more especially when I have a long day's walk before me on the morrow."

"Then perhaps you will alow me to brew you a cup of *cafe-au-lait*. I learnt the art when I was a young fellow knocking about Paris, and I flatter myself that I can do it tolerably well. And you too, Mr. Peddlert would be none the worse for a drop of coffee. What say you?"

"Just as you like, *mein Knabe*; just as you like. This drink which I have here is very good, but I suppose I've had enough of it."

The landlord set to work with alacrity, and in a few minutes produced an excellent cup of coffee, such, certainly as I had never tasted before. Immediately after the coffee was ready, the little clock in the corner struck ten, on hearing it both Jacoby and I arose, and asked to be shown to our rooms, for we had the prospect of a long tramp before us the next day. The mulatto woman and the young savage had retired sometime before; so the landlord in person lighted our candles, and ushered up the rickety stairs, on the top of which we found ourselves in a gloomy corridor lighted from the roof, having doors opening out of it on either sides. My room was at one end of the passage, and Jacoby's at the other. The landlord having seen each of us into his room bade us a cheerful good-night; and the next moment I heard the creaking of the stairs as he went down into the lower parts of the house. I was about to close my door, when Jacoby called to me from his room.

"Good night, ole fello! Don't oversleep y'self in th' morning."

I responded to his greeting, and then closed and locked the door. The bed-room, like every other part of the house I had seen, was poorly and scantily furnished, and was of an old-fashioned, tumble-down appearance. Across the whole length of the low ceiling ran a thick, heavy beam, from the middle of which stood out conspicuously a small hook, which at once connected itself in my mind with the idea of some antecedent suicide; the floor in many places was rough and uneven; the windows consisted of small diamond panes set in lead and barred with iron; the door was of old black oak; and there was a decent of two steps into the room.

I had sat down to note these things, and was partly undressed, when I suddenly stumbled forward, and found that I had unconsciously gone to sleep while sitting in the chair. A deadly stupor and lethargy, such as I had never experienced before, seemed suddenly to weigh down both my body and brain. I got up, but could scarcely stand; and when I attempted to walk, I reeled forward towards the bed like a drunken man; and sunk with my head on the pillow weighed down by a heaviness unspeakable; and knew nothing more. The coffee has undoubtedly been drugged.

How long I had slept I cannot tell—whether hours, or minutes only—when I suddenly found myself sitting up in bed, trembling with horror, and with a wild cry of agony ringing shrilly through my brain.

"Murder!"

The sharp, intense cry of one in dire extremity. Whose voice it was that gave utterance to it, and from what part of the house it proceeded, I could not tell; I only knew that without any preliminary waking as it seemed to me, I found myself sitting up in bed, staring, with wildly-beating heart, into the intense darkness around me, not remembering for the moment where I was, my brain still ringing with that terrible cry. But I had scarcely time to gather my scattered wits together, when, following quickly on the cry came the sound of a pistol-shot, evidently close at hand; then a heavy fall on the floor; and then all was still.

I had called to my mind by this time where I was, and all the occurrences of the evening; and on hearing the shot I leaped out of bed, and made for the door, and after groping about for a moment or two found it. I had locked the door before getting into bed, and now unfastened it; but on attempting to open it, found that I could not do so. It was evidently fastened outside; but for what purpose? Had it been done to prevent me from going to the assistance of the peddler? That cry, that pistol-shot—poor Jacoby must have been murdered in his bed, and it would doubtless be my turn next. Dead men tell no tales.

I was without arms, except a small clasp knife; a knife which I had had when a school-lad, and still carried from long habit. This would probably be of little or no service in any coming encounter, but I got it ready nevertheless, tying my handkerchief round the haft so as to obtain a firmer grip. Nothing in the room that I could have piled against the door could have opposed for one moment the entrance of any one determined on coming in. I examined the window again, hoping to find sufficient space between the bars to allow of my creeping through and dropping to the ground; but the hope proved futile. I groped my way back to the bed, and sat down on the edge of it. I trembled no longer the first surprise was over, and although the suspense was terrible, I prepared like a man to meet the worst that could happen to me. I felt very cold, chilled to the marrow, so I laid down my knife for a moment, and wrapped my travelling plaid carefully round me. My thoughts wandered away to my mother. How she would wonder what had become of her boy, and sit at home with sad patience, month after month, waiting to greet him who would never cross the threshold more, but a little sob that burst irrepressibly from my heart warned me not to give way, and recall to my thoughts to the imminent danger before me. Yes, I would sell my life dearly, if they did not shoot me down before I had time to make one effort for my deliverance. But why did they not come? A deathlike silence reigned through the house; not a whisper, not a footfall; a silence and darkness as of the grave, intense and horrible, not long to be borne without madness. Was my bed-room door really fast? Had I, in my nervous haste, examined it sufficiently to be sure of the fact? I rose, and groped my way to the door, and examined it carefully again assuring myself this time that it must really be secured on the other side. As I said before, there was a descent of two steps into the room; and as I moved my bare feet along these steps in my effort to open the door I slid one of them into a cold liquid pool of something which was trickling slowly into the room. I fell back as though I had been shot. I was but a boy, remember, and scarcely recovered from a long illness brought on by over-study; my nerves were still weak, and this last horror was more than I could bear. A sickness as of death, crept over me; my senses left me; and I fell to the ground.

When I regained my consciousness the room was still quite dark; but the outline of the window stood out, a faint gray square from the surrounding blackness; and I knew that the blessed daylight was at hand. With a shudder I drew myself farther away from the door, away into the farthest corner of the room, and there crouched up against the wall, sat, expecting I know not what.

The terrible stillness which had oppressed me so heavily before, still reigned through the house. Not the faintest murmur of a voice, not the slightest footfall on the floor, anywhere to be heard. Why had I been fastened up in that gloomy room? Did they intend to leave me there to starve? But for what purpose? What was to be gained by such a step? What had become of Jacoby? Was it he who had given utterance to that cry of agony in the dark? I exhausted a thousand conjectures as I crouched in my corner watching the dawn slowly brighten, and still keeping my eyes fixed on the door, under which I knew a thin red stream was oozing. I could see it at last, a shining patch on the dark oak step, where it had fallen drop by drop during the long night hours. I could not take my eyes off it, they seemed wedded to it by a terrible fascination. I watched it while the day broadened by imperceptible degrees. I got up after a time and went slowly towards it. I must try the door again. Perhaps with daylight to assist me, I might discover some mode of escape. Ah, what a great dark patch still creeping slowly under the door! Slowly I approached it. Nearer and nearer.

Thank Heaven! not blood, but water!

In the revulsion of feeling caused by this discovery, I sank on my knees by the side of the bed, and burst into a passion of sobs and tears; and became thereby stronger and calmer, and again felt the sweet hopes of life nestle warmly round my heart.

On again trying the door, which was strong and heavy, and made of dark old oak, I ascertained for a fact that it was fastened outside; the keyhole I found to be covered by a plate on the other side. I carefully examined the window once more, but the iron bars were too close and strong to afford me the slightest chance of escape that way. The chimney, too, after a glance, was abandoned as hopeless. That unaccountable stillness continued, although it was now broad day. I would break it at any risk, happen what might. I went back to the door and shook it, and halloed with all my strength calling Jacoby and the landlord by name; but there came no response, save a few dull echoes, and when they died away, silence fell on the place once more.

There was a small semicircular opening near the top of the door, probably intended originally as a means of ventillation to the room, and while casting about for some way of escape, the thought struck me that getting on a chair and looking through the opening, I might ascertain something that would be of service to me. Next moment I had placed one of the two rickety chairs close to the door, and mounting it with caution, found that my eyes were exactly on a level with the opening. On looking through, my glance traversed, first, the floor of the passage, following the thread of water, and tracing it back by degrees to the door of Jacoby's room, which, as stated before, was opposite mine, at the other